

EL DORADO RAND MINING COMPANY

Location: In Eldorado Canyon, Clark County, in the Nelson Mining District, Nevada, about 32 miles South of Las Vegas, 18 miles North of Searchlight, and 12 miles West of the Colorado River. Nelson is the nearest crossroads portoffice, about 2 miles northeast. The road from Las Vegas passes within a few miles of Boulder Dam, and is in first class condition. Elevation at mill - 4,000 feet, about 3350 feet above the river. Electric power lines to the dam now makes electric power available.

Area: Property consists of solid group of 30 practically full-size mining claims, or about 540 acres, surrounding the Quaker City Claim which is the only patented claim in the group. The assessment work on all of the other claims has been done for the year 1930-31, and was recorded February 16, 1931, at Las Vegas, Nevada. Two claims were re-located as of June 5, 1931.

Equipment: Improvements consist of ten-stamp mill, complete with amalgamation tables, cyanide mill, etc., all driven by several gasoline engines aggregating about 80 H. P., The machinery has been overhauled and put in good working order, and the efficiency of the mill is attested by the assay of the tailings, which aggregate about 85%.

There are the usual necessary group of buildings, consisting of boarding-house, bunk-houses, superintendent's cottage, assay office, smelting room, mine office, etc. The two hoists and air compressors are driven by gas engines.

Water: This property has never been worked more than two or three months each year, due to lack of water. Now, however, through an arrangement with the neighboring Wall Street Mine, an abundance of water is assured for continuous 12 month's operation. A gasoline pump has been installed at the Wall Street shaft, where three or four hour's pumping each day lifts 4,000 or 5,000 gallons, 500 feet thru 4,500 feet of 2 inch pipe, furnishing plenty of water for all purposes. This water costs \$1.00 per month, without the cost of pumping. The caretaker at the Wall Street Mine attends to the pumping for 50¢ per day.

Past Mining Operations: There are two mines on the property in which considerable underground work has been done, the Rand and the Quaker City, about 700 feet apart. The Rand shaft has been sunk 500 feet deep on a 60° incline, with levels at 140, 300, 350, 400, and 500 feet, and is reported to have produced over a quarter of a million in the past. There is considerable ore in sight but of a low grade. The Quaker City shaft is on a 15° incline and runs in several hundred feet. The ore at present comes from a 9 foot vein, with 4 feet averaging about \$26.00 and 5 feet averaging \$5.00 to \$7.00, which gives a mine run ore of about \$16.00 from which better than 90% recovery is made. About 55% of the recovery is made on the amalgam tables, the balance from the cyanide process.

Ore: The ore is of quartz, calcite and some iron in form of sulphides or oxides and carbonates.

Present Operation: The present operation is netting from \$2,000.00 to \$2,500.00 per month, over and above all costs of operation. The mine is running one shift, the mill two shifts and handling from 18 to 20 tons per day. A crew of 16, including Superintendent, boarding-house cooks, etc., is employed. One miner produces enough ore to maintain the operation on this basis.

Geological Formations: The Government has never made a detailed survey. Ransome, in 1904, made a three days' reconnaissance and four years later a government pamphlet was issued but, of course, little detail could be observed or shown. Aside from this, I think no attempt has been made to outline the geology of the district and to correlate the formations of the various mines.

Recently, I sent specimens of the formations associated with the Quaker City ore deposits to Mr. Jay Carpenter, State Geologist of Nevada. All were reported as altered monzonite. Macroscopically, there is a wide difference in the hanging wall formation, the ore bearing sheet and the foot wall formation. The first we had defined as andesite, the second as monzonite and the third an igneous member of close grained granitoid texture. The monzonite sheet to which the ore bodies as now developed are confined, varies from 10 to 20 feet in thickness with a flat inclination (15°) to the Northeast. The ore bodies are now limited on the Northwest by a roll of this monzonite sheet which steepens to a dip of 60°. As yet no work has been done to explore this steeper dipping portion of the sheet but sampling at the roll indicates persistence of values and deeper development, it is confidently believed, will expose good grade bodies. There are several hundred feet of unexplored territory on the flatter dipping portions of the monzonite sheet which should yield ore. This area lies between the old workings and the



bodies now being exploited and will be developed by a tunnel now being started as a part of the exploration work authorized by Mr. Kemp.

The essential feature of the district is the preponderance of igneous rocks; no sedimentaries are exposed. This condition argues well for the persistence of ore to depth.

The Rand vein, in contrast to the Quaker City, is of the fissure type; a fissure in altered monzonite, striking East-West and dipping  $55^{\circ}$  to the North. The lowest workings (500 foot level) are now under 50 feet of water and no records of the exposures are available. It should be good ground and further depth should be productive. To the East a fault interrupts the vein and the extension has not been located. Geological study should find it.

I now have a geologist, Gordon McMillan, working on the details of the Rand Group. He is doing this in connection with other work in the district and I am sure his reports and maps will be of value.

This data is not intended as a comprehensive report but may give you some idea of the geology. Later, when McMillan gets more information, a complete report, accompanied by maps, will be made up.

P. L. Williams, Jr., Manager

We have maps of the claims, of the underground workings and plans of the mill-layout, a few photographs and ore specimens at this office.



Notation by C.W.A.:

R.M.A.- I saw the maps,  
mill flow sheet, pictures,  
etc. of this property.

(27)  
Item 18

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This is new - built 1930)

AREA:

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EQUIPMENT:

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A. N. Kemp, Receiver for  
Guaranty Building and Loan  
Association of Los Angeles



August 1, 1931. (27)

GEOLOGICAL FORMATIONS AT RAND MINE AND ELDORADO DISTRICT  
ELDORADO-RAND MINING COMPANY

Item 1

The Government has never made a detailed survey. Ransome, in 1904, made a three days' reconnaissance and four years later a government pamphlet was issued but, of course, little detail could be observed or shown. Aside from this, I think no attempt has been made to outline the geology of the district and to correlate the formations of the various mines.

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P. L. Williams, Jr.



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