

Mike Price Phoenix Ariz

Bill Keightley

335

ITEM 32

3460 0030

MINING POTENTIAL OF THE HOCUM GOLD PLACER DISTRICT
IN MARY ANN CANYON
OF
OSCEOLA MINING DISTRICT
WHITE PINE COUNTY, NEVADA

BY

B. E. ANDERSON
CONSULTING ENGINEER
APRIL 8, 1972

Location

The gold placer deposit covered by this report is located at Hogum (a former small town), Nevada, at the mouth of Mary Ann Canyon on the west slopes from Pilot Knob Ridge. It is about one mile from U. S. Highway 6 and 50, west of the Utah-Nevada border, and is located in the Osceola Mining District.

Access to the property is good by dirt roads and should be minable most of the year.

Summary

On several occasions, the writer has visited this area and observed the conditions as well as studied government reports, maps and aerial photos.

The alluvial fans of both the Osceola (Dry Gulch) which is about 2-1/2 miles north and Hogum (Mary Ann Canyon) have come from a common source of Pilot Knob Ridge. Gold was discovered in the Osceola District in 1872 in lode and in 1877 in placer. It is reported that ~~over two million~~ dollars were recovered at \$20 per ounce before 1900 by the U.S.B.M.

In 1879 "pay gravel" was found in Hogum and has been worked intermittently since, with \$7,500 in gold being recovered with a small hand machine in 1934 and 1935. The machine had a capacity of only two cubic yards per hour.

Value of the approximately 550 acres will depend on the economic recovery from about 25 million cubic yards estimating 30 feet average depth. Mr. Vanderburg, U. S. Bureau of Mines, in 1936, estimated the Dry Gulch gravel at \$1.32 per cubic yard average from 4700 samples 7 to 54 feet in depth averaging 26-1/2 feet. Hogum gravel could be similar and with a good, highly efficient recovery system that would recover colloidal sizes, the deposit should be economically successful.

124 shaft

Ample water is available from a well about one mile west of the property, and the dredge to be used is guaranteed as to performance.

This area has large potential reserves if this operation proves to be successful, especially at fine gold recovery.

This program of using a 300 cy per hour capacity dredge, but assuming only 200 cy per hour overall average rate, will be the most practical operation in the history of the area. This makes operating costs of less than 25¢ per yard possible. It is the writer's opinion that the loss in interest of the past was due to low capacity, high operating cost plants. Also, they did not recover the finer gold. The reports indicate 50% recovery as good.

Geology

An alluvial fan has been deposited at the mouth of Mary Ann Canyon from principal drainage link in which the placer deposit occurs. The stream bed is dry during most of the year and is at an elevation of 6000 to 9600 feet. The map location is in sections 22,23,24,25,26 and 27, T. 14 N., R. 67 E., in White Pine County, Nevada.

Lode gold occurs in gold-quartz veins radiating out from a granite porphyry exposed in the upper canyon. The gold in the gravel has been concentrated somewhat by the water when eroding this lode material. Both Weeks in 1900 and Vandenberg in 1935 describe the quartzite, argillaceous shales and fossils of Olenellus type. In the mining district there are no other sedimentary rocks except the recent deposits of placers. These deposits are from a few inches to 80 feet thick. The gravel ranges from fine to coarse with few large boulders.

In 1966, a 16-inch well one hundred feet deep was drilled on the west end of the property. Water was found at 62 feet from which ample water can be pumped. Also, in 1967, a 6-inch well and pump was drilled and tested. These verify the availability of water. ✓

BUT OVER A PERIOD OF TIME?

Mining

Since 1872, there has been mining operations in this district. In 1934 and 1935 gold was recovered from these Hogum placer gravels. Vanderburg in 1936 reports that 4700 samples in Dry Gulch, 2-1/2 to 3 miles north, averaged \$1.32 per cubic yard from depths averaging 26-1/2 feet from 7 to 54 feet deep. Values at Hogum placer deposits are reported by Weeks in 1907 as follows: "The pay stratum was reported to have yielded from \$6 to \$8 per cubic yard." This was a higher grade stratum near bedrock.

Therefore, the writer agrees with the proposal to bring in a large capacity-high recovery dredge and determine the values by actual operation. Especially when costs of operation can be less than 25¢ per yard.

To make a sampling of placer deposits is very difficult and expensive. The gold is not uniformly distributed and is usually higher near bedrock and becomes less near the surface. Also, it can be in channels.

However, in this case, we can calculate the volume roughly by using about 550 acres at an average depth of 30 feet (already reported in several places) and we have about 30 million cubic yards. Using \$1.87 per yard net for an easy example, the net value would be 56,100,000 dollars. At 5000 yards per 24 hours for ten months per year, is about 2 million net per year for twenty years for one dredge.

The writer is not stating that the deposit is worth \$1.87 per yard net. The value will have to be established after a few months' operation. ✓

B. E. Anderson

B. E. ANDERSON
Professional Engineer
State of Utah #976

BLARD E. ANDERSON, 2551 Olympus Drive, Salt Lake City, Utah,
Graduate of the University of Utah in 1935 with a Meteorological and
Mechanical B S Degree, received his professional engineering license
in the state of Utah in 1939 and in the state of Washington in 1943.
Has worked for American Smelting & Mining for 38 years in the cap-
acity of; draftsman - 2 years, in the research department - 3 years,
plant engineering - 3 years, designer of refinery - 2 years, designer
and project engineer on various mining projects - 5 years, chief eng-
ineer of metals division - 5 years, project & evaluation engineering
including gold & silver refinery - 13 years.

Mr. Anderson was on the Board Of Directors of Minerals Reduction
Refining Co. In 1950, and President of the Caribou Mining Company from
1955 to 1960.

Newman

ADDITION TO REPORTS WRITTEN ON
APRIL 8TH AND JULY 20TH, 1972
FOR THE
MINING POTENTIAL OF THE HOGUM GOLD PLACER DISTRICT
IN MARY ANN CANYON
OF
OSCEOLA MINING DISTRICT
WHITE PINE COUNTY, NEVADA

By
B. E. Anderson
Consulting Engineer
October 24, 1972

At the times of writing the former two reports on the Hogum Gold Placer Deposits in Mary Ann Canyon, Osceola Mining District, the author had not sampled the placer deposits referred to in the reports.

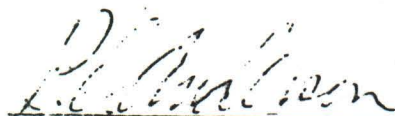
Mining authorities and the United States B of M have explained that it is difficult to sample a material accurately which contains only a small fraction of an ounce per ton or cubic yard (which weighs about 2700 pounds). Especially when the distribution of the gold is not uniform and is very fine; as was seen with the microscope.

However, in order to verify that gold is present in the claims, indicative sampling was done on October 12th and 13th, 1972. A front end loader was used for the surface sampling by digging a trench about four feet wide, pushing off about 12" of top soil, and gathering about five pounds of material uniformly across the four feet of width. This was repeated six times. Each time another 12" of soil was removed until the hole was about six feet deep. The total weight of the sample accumulated was 30 pounds. This 30 pounds of material was then carefully panned with a standard gold pan and the heavy fines which were accumulated as a concentrate were assayed. The assay was reported for the 30 pounds as being .066 oz. of gold per ton in values. At \$65.00 per oz. this is \$4.29 per ton or \$5.79 per cubic yard in place. When gold was \$20.00 per oz., this would have been \$1.78 per yard and verifies the several older published reports written about the deposits.

Also, on the same days the above sampling was done, an existing 50 foot vertical shaft on the property was sampled on the sidewalls and bottom. A 200 pound sample collected at uniform intervals along the lower 25 feet of the ladder assayed .371 oz. per ton and a 200 pound sample near bedrock in the bottom of the shaft assayed .415 oz. of gold per ton. This is \$24.10 and \$27.00 per ton respectively or \$32.60 and \$36.40 per cubic yard using \$65.00 per oz. At \$20.00 per oz. this would have been \$10.00 and \$11.20 per cubic yard.

These values are for the samples taken and should be considered only as proof that there is gold on the property. Yet, these were taken at random and the only samples taken.

The writer is satisfied that the various former reports are now vindicated. However, if several more similar surface samples are requested, the writer will be happy to have them made though he does not think they are required. This area is a large alluvial fan and should be somewhat consistent in contents.



R. E. Anderson
Consulting Engineer
State of Utah License #976

BEA:dka