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02/26/91

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: PROHOROFF-VAN LANDINGHAM CLAIM

ALTERNATE NAMES:

YUMA COUNTY MILS NUMBER: 349

LOCATION: TOWNSHIP 4 S RANGE 11 W SECTION 1 QUARTER C
LATITUDE: N 32DEG 06MIN 35SEC LONGITUDE: W 113DEG 20MIN 55SEC
TOPO MAP NAME: HYDER SE - 7.5 MIN

CURRENT STATUS: UNKNOWN

COMMODITY:
GOLD LODE

BIBLIOGRAPHY:
AZBM FILE DATA
ADMMR PROHOROFF-VAN LANDINGHAM CLAIM FILE

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Prohoroff-Landingham Gold Claims Date 10-9-62
District Neversweat Dist., Yuma County Engineer Lewis A. Smith
Subject: Interview With Richard Mieritz, Consultant.

Location: 7 miles due north of Hyder, and 3 miles southeast of Turtle Back Mountain (Approx. Sec.'s 1-2, T.4 S., R. 11 W.)

Property: 3 claims (unpatented)

Owners: Alex Prohoroff, West Buckeye Rd., & 67th Ave., Phoenix, Ariz.
Guy Landingham, Arlington, Ariz.

Minerals: Gold

Work: A triangular bulldozer cut was made to expose a portion of the vein. They cut slices off the end of a low hill to a maximum depth of 16 feet at the face. The triangle sides are about 50 feet long. Near the center of the face an old caved shaft was encountered. Shallow cuts and pits, a few feet deep, lie along the vein outcrop.

Geology: The mineralization lies along a fissure vein which cuts andesitic rock. The vein trends E-W and dips 66 degrees south, and has a persistent outcrop for over 2000 feet. It consists of 2 inches of fault gouge and 3-4 feet of "bull" quartz. The andesite wall rock is altered out from the vein for several feet by chloritization, silicification and sericitization. The best gold values are in the 2-inch gouge zone, which assayed about 0.06 ounces per ton. The quartz assayed about 0.01 ounces of gold per ton, the highest assay being 0.09 ounces. Pyrite and limonite, pseudomorphic after the pyrite, are the principal accessory minerals, the gold occurring in both minerals. The limonite cubes are small, seldom exceeding 1/8 inch on the sides.

Mill: A small concentrating plant was recently erected to treat the ore. This consists of a 10 mesh, shaking screen which yields a fine concentrate which is sent directly to the Knutson concentrating machine. The oversize is sent to a 6x8 inch jaw crusher where it is reduced 1/4 inch and screened through 10 mesh. The plus 10-mesh material is then ball milled in a 3x3 foot ball mill. The minus 10-mesh is treated in a Knutson concentration machine. The Knutson machine consists of two concentric pans covered with rubber riffles. The larger pan is 36 inches in diameter and 12-inches deep, while the smaller pan is 30 inches in diameter and 10 inches deep. Both pans are attached to a central pipe which feeds the wetted ore into the pans under pressure. The smaller pan's upper edge is 1 inch below the upper edge of the larger pan. The pans revolve, on a pitch of several degrees, at a considerable speed. The fine concentrate is thrown by centrifugal force over the edge of the smaller pan into the outer pan, the coarser low grade

MEMO

Prohoroff-Lang^dingham Gold Claims

10-22-62

Neversweat Dist., Yuma Co. (Very close to
Maricopa-Yuma line)

Lewis A. Smith

Interview with Tom Spargo, 7001 So. 6th Ave., Phoenix.

Tom Spargo stated that he had sunk a 45 degree incline shaft on the vein to a depth of 15 feet. The vein trends E-W and dips 70 degrees S. The last round show good cellular limonite which is partly indigenous. This indicates some copper but mainly pyrite. This occurs in blebs and narrow stringers in the quartz. The limonite contains "flower" gold which is fine-grained. Some spots of chrysocolla occur in the quartz. The vein, according to Spargo, appears to be widening somewhat with depth as are the limonite areas. 5 tons of this material, run through the mill, indicated a grade of \$2.00 in gold. Spargo said this would not pay. He has hopes of uncovering material which would assay enough to be shipable for siliceous flux. He conferred with A.S. & R. at Hayden, and they are in need of flux which would average 75 percent, or more, in silica. They indicated that they would pay the freight and treat the ore free. However, Spargo thinks he would have to have at least \$10.00 per ton in accessory values to make a go of it.

The ore, near the deposit, consists mainly of gneissic granite which forms both walls of the vein. The gneissic foliations generally trend NE-SW.

Spargo stated that the Knutson machine revolves at 130 R.P.M. and uses 50 gallons of water per minute. The interior pan (riffled) revolves while the outer pan is stationary. The sides of this pan are sloped at 35 degrees.

It is driven by gears attached to a Model "A" Ford drive shaft and motor. A four-inch pipe, in the center feeds the inner pan. The unit will handle up to 6 tons per hour. The waste is thrown by centrifugal force, over the pan edge into the outer pan and discharged, from the latter, through vents. The feed is carried at 40 mesh.

Prohoroff-Landingham Gold Claims

Interview with Richard Mieritz

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Lewis A. Smith

material being discharged from the bottom of the smaller pan. The concentrate is reported to assay 0.09 ounces of gold.

Mieritz reported unfavorably on the project because of the consistently low gold values and excessive costs. So far \$10,000 has been expended with very little relative return. The quartz is too narrow to be mined successfully for flux alone. It would have to be mined underground in the main.