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08/06/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: R AND H GROUP

ALTERNATE NAMES:

GILA COUNTY MILS NUMBER: 133A

LOCATION: TOWNSHIP 1 N RANGE 14 E SECTION 13 QUARTER NW LATITUDE: N 33DEG 26MIN 10SEC LONGITUDE: W 110DEG 53MIN 25SEC TOPO MAP NAME: INSPIRATION - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:

COPPER GOLD SILICON SMELTER FLUX

BIBLIOGRAPHY:

ADMMR R AND H GROUP FILE

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA FIELD ENGINEERS REPORT

Mine & R & H Group

Date September 23, 1960

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District Miami District, Gila County

Engineer Lewis A. Smith

Subject: Mine visit with Henry Huffman

Owner: Henry Huffman, 300 Chrysocolla, Globe, Arizona

Property: 12 claims (unpatented)

Location: 1¹/₂ miles south of the Sleeping Beauty Pit. T. 1 N., R. 14 E., Sec. 12-13

Minerals: Gold-copper-silica

Work: The property has been developed to date by several cuts, pits and tunnels. The bulk of the present work is in a cut and a 60 foot tunnel both on the same vein and within 200 feet of each other on the same claim. An older cut and pit on the south quartz vein are mostly caved. A 400-500 foot adit penetrates from Inspiration ground into one edge of the R & H Group and in places showed copper-gold lenses.

Geology: The area consists of pinal schist intruded by at least 3 diabase dikes, several local masses of monzonite porphyry and a basic plutonic rock (probably diorite) which has hornblende segregations scattered throughout the exposed rock. These segregations are up to 3/4 of an inch in diameter and are variable rounded in shape. This rock is exposed only in the bottom of a small canyon which contains the newer work. The diabase dikes partly follow the vein fractures and partly deviate from them into the schist country rock usually along transverse breaks that cross the veins. The monzonite porphyry lies mainly in two claim fractions that belong to Inspiration Copper Company and to Miami Copper Company, respectively. The main exposure is roughly 200 feet in diameter and is slightly elongated in a N 10° E direction. A long 400-450 foot tunnel penetrated this monzonite through the last 100 feet from the southwest. One diabase dike apparently follows a fault zone to the monzonite porphyry, although the contact relationship was not clear enough to tell if it penetrates the monzonite. Three or four small patches of monzonite-porphyry (Lost Gulch Formation) dot the schist in the northwest portion of the claims and these all lie to the north of the major mass.

The veins trend N 8-12 E and generally dip 60 to 70 degrees to the southeast, with the exception of a large quartz vein which is nearly vertical and curves to the north on the north part of the claims eventually intersecting the last vein. This big quartz vein weaves somewhat (striking N to N 20° E). It extends intermittently for about 4,000 feet from the north part of the R & H Group to the southwest well into Inspiration ground for at least 2000 feet. This vein ranges from 10 to 25 feet wide. It has a bold outcrop in places and forms a series of intermittently distributed tabular buttes along the strike. It consists of several feet of "bull" quartz and a few feet along the footwall of somewhat brecciated sugary, thin-sheeted quartz which is vuggy in places and which is heavily stained and coated by limonite of pyrite derivation and is gold bearing. Little evidence of copper sulphide derived limonite was seen.

The other, or the worked vein, lies NW of the first vein some 400 feet and is far less prominent on the surface, being composed of 2 feet, or more, of sugary quartz, which is somewhat more vuggy than is the case in the larger, more prominent vein. 1-4 feet of fault breccia and gouge lie in the hanging wall next to the quartz portion of the vein and is mineralized to a less degree than the quartz part.

R & H Group (continued)

This vein mainly has schist walls, but along its southwest exposure it lies in, or adjoins diabase for a few hundred feet especially along the hanging wall in places and to a lesser degree in the footwall. The diabase next to the post-diabase vein fracture is mineralized by cupriferous pyrite and is strongly empregnated by yellow to red limonite. However, the area of recent work is entirely in schist and the underlying diorite(?). The gouge material in the last named vein is impregnated by chrysocolla and locally runs up to 3% of copper. The gold is more in the quartz portion and is reported to run up to \$90.00 per ton with much less copper. Galena-silver ore is reported by Huffman in other veins in the southeast portion of the area and he avers that an engineer stated that the lead-silver appeared to be later than the copper-gold. The mineralizing solutions did not appear to have had wide spread lateral effects on the schist walls or into the monzonite, being severely altered only within a few feet of the veins. This alteration appeared to be limited sericitization and silicification, and it is more pronounced in the vein footwalls. The last vein offsets the larger quartz vein east of the new tunnel (60 foot) and offsets it for a horizontal distance of roughly 70-80 feet. Gold along with chalcopyrite and pyrite mineralization, at least, must have come in shortly after the vein fractures were formed. Apparently the valuable portion in the footwall of the larger quartz vein must have reopened when the later vein fracture occurred, since both contain similar mineralization and the last vein offsets the big quartz vein. Other transverse fractures have little noticeable movement.

It was recommended that the new tunnel be driven along the last vein to the intersection of the two veins, a distance of about 100-110 feet. There could be an ore shoot at this fracture locus.

It was also recommended that some work be done on the lead-silver mineralization to the southeast. It is not uncommon for this type of mineralization to have occurred following an appreciable time interval after the copper-gold mineralization. Mr. Huffman said that no appreciable copper mineralization had thus far been found in the lead-silver area. However, zonal arrangement could be present, and if so, it would be entirely possible to find copper in depth underneath and fingering into the higher lead-silver mineralization.

Other observers of the property stated that, in their opinion, it had local areas which could be developed in good small operations, particularly the gold-bearing parts of the veins. They likewise felt that the lead-silver areas were worth some exploration.

West of the Huffman Property and southwest and west of the Sleeping Beauty Pit of Miami Copper Company, are a group of highly iron stained zones in schist. These evidently are following a wide shear belt, and they are nearly parallel to each other. They are roughly on the same trend as the Huffman veins. The shear belt is bounded in part to the northwest, by limestone and in part by a granitic rock. The limonite in the shears, while largely derived from pyrite, shows appreciable copper indications. Since this area has not been drilled, it was suggested to the Miami Geologist that this be considered in the future, particularly since this shear trends into the southwest border of the Pit ore zone. The high iron area in this shear zone, is comparable to the high iron zones bordering some other open pit ore bodies such as Morenci, Chino, Ray and Bingham. In all of these iron halos the iron-copper ratio is somewhat higher than was found in the main pits, but it was found that considerable marketable ore occurred in them, enen though the copper content was usually somewhat lower.