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07/23/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SULPHIDE CANYON GROUP

ALTERNATE NAMES:

KING BOLT
CLEVIS PIN
GET AWAY

PINAL COUNTY MILS NUMBER: 170

LOCATION: TOWNSHIP 3 S RANGE 13 E SECTION 22 QUARTER N2
LATITUDE: N 33DEG 09MIN 38SEC LONGITUDE: W 111DEG 00MIN 22SEC
TOPO MAP NAME: TEAPOT MOUNTAIN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

TUNGSTEN
COPPER SULFIDE
COPPER OXIDE
LEAD
SILVER

BIBLIOGRAPHY:

ADMMR SULPHIDE CANYON GROUP FILE

REPORT
ON
SULPHIDE CANYON GROUP
NEAR RAY PINAL COUNTY ARIZONA.

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The Sulphide Canyon Group of mining claims is located in the Mineral Creek mining district, Pinal county, Arizona, about two miles southwest of the town of Ray. The main body of the claims lies just south of Humbolt Hill, underneath which lies the largest ore-body in the Ray Consolidated Copper Company ground. The Sulphide Canyon Group is bounded on the north by the property of the Ray Consolidated and on the east by the West Ray Group of the Arizona Hercules Copper Company.

The group consists of twenty claims held by the right of location. On the entire group the annual labor requirements have been performed regularly and in accordance with the law by the present owners for the last ten years.

The area covered by this property is mountainous and steep but not correspondingly rough. It lies on the long slope west of Ray and Sonora, rising westward and terminating in the crest of the Mineral Creek Range. The elevation ranges from 2200 to nearly 4000 feet above sea level. Sulphide Canyon which joins Copper Canyon just back of Barcelona traverses the entire property and affords an excellent geologic section.

A wagon road can be built to the heart of the property easily and cheaply, connecting either with the streets of Sonora or the main wagon road in Copper Canyon. The construction of the necessary drill roads will be no more expensive on this group than on other areas in the same district.

Several good descriptions of the general geology of the district, the ore-bodies, their origin and mode of occurrence are available. A short but most excellent description may be found in the Mining World for January 14, 1911, pp 53-56, "The Ray Copper Mining District" by Walter Harvey Weed. This should be consulted for a better understanding of the details of the geology of the district as a whole.

The only rock masses of importance met with on the Sulphide Canyon group are schist and granite. There are also areas or rounded creek gravels cemented by copper minerals similar to the occurrences on the ground of the Ray Consolidated which have been a source of considerable revenue chiefly through leasing operations. Some shipments of this class of material has been made from the Sulphide Canyon group. A few dikes were noted but as there was nothing to indicate a close relationship between any such dikes and possible ore deposits they were not studied in detail.

The granite which is exposed in the western part of the group under consideration, forms the core of the Mineral Creek Range and in probably a part of the great granitic mass which underlies the entire district and which produced the primary mineralization by gases and heated vapors given off during the cooling stage. Intrusive granite-porphry dikes and irregular masses which will probably be ore carriers may be reasonably expected as in other parts of the district.

The Pinal schist on the Sulphide Canyon Group is of two sorts; a dense, dark, hard quartz-schist and a lighter colored, more porous variety, resembling mica-schist. While there are ~~no~~ ^{some} exposures showing the one class grading into the other yet there are in isolated places intermediate types. The chief difference between the two types or extremes seems to be only the matter of the relative amounts of silicification.

An excellent opportunity to study the quartz-schist is afforded in the deep, steep-sides, narrow canyon made by Sulphide Canyon as it traverses the group. The rock in the main is found to be a dense, excessively hard quartz-schist, generally red or black in color. It is highly siliceous and very resistant to all forms of erosion. In some instances the schist strongly resembles a gneiss, consisting chiefly of quartz and biotite with grains of pyrite large enough to be recognized without the aid of a glass. In some areas it is interlaced with minute veinlets of secondary quartz carrying pyrite and chalcopyrite. The dissolution and the leaching of the primary minerals has not been as extensive or as complete in this quartz-schist as it has been in the more porous, less siliceous mica schists. On the fracture planes unaltered cupriferous pyrite and chalcopyrite may be found. The overhanging cliffs and artificial openings all show bright copper stains that are characteristic of the district. Water in the creek and that which accumulates in the prospect holes is highly charged with copper salts.

The softer, more porous, mica-schist is seen to best advantage on the three claims along the north, namely the King' Belt, Clevis Pin and Get' Away. In the main it is but slightly silicified and in some instances the foliation is well preserved. It is grey to black in color except where modified to brown or red and lighter shades by iron. A close inspection reveals the casts left by the decomposed and leached primary minerals from which the copper values have been carried downward and redeposited making the now workable ore bodies. Copper stains are less abundant at the surface in this type of schist than in the quartz-schist. This is probably due to the more complete leaching and subsequent bleaching of the softer type. These three claims lie just south of and within a short distance of the principal ore body of the Ray Consolidated Copper Company property.

In the northwestern corner of the group and lying next to the three claims just mentioned but in a granite area are three claims covering a series of east-west fissures having a moderate dip north. The vein filling is chiefly white quartz with some kaolin along the walls. In some places the filling consists chiefly of detached and brecciated fragments of country rock cemented by vein quartz. Drusy cavities lined with coarse quartz crystals are frequent. As a rule these cavities are coated with copper carbonate. Comb structure is also noted in the quartz.

The principal mineral of value in these veins is Hubnerite, an ore of tungsten. It occurs in moderate sized crystals. An unidentified silver mineral, rare pyrite (cupriferous?) a small amount of silver bromide and a green stain from copper are the only other minerals of importance. In the dense, milky-white quartz the hubnerite is in moderately large crystals and of uniform distribution. In the darker quartz masses stained by iron oxides the tungsten, silver and copper minerals with their individual decomposition products occur in an intimate mixture with little or no gangue quartz.

Two open cuts on these fissures reveal short shoots of high grade tungsten ore about eighteen inches wide. Below these open cuts a crosscut tunnel has been begun and has recently tapped the vein. Some excellent tungsten ore has been taken out at different points on the vein and in all probability under the existing high market for this metal a good profit can be made by sorting the ore carefully.

The situation of the property, surrounded as it is on the north and east by the property of the two large companies of the district, and bounded on the west by the granitic mass conceded to be the source of the primary mineralization of the entire district, the abundant evidences of mineralization of the same general nature as to be seen in the adjoining ground overlying the large proven ore-bodies of the Ray Consolidated property are considered sufficient to justify the further exploration of the property by well directed drilling. Drilling operations should be supplemented by the necessary studies of the geology. The data available in the present condition of the property is considered sufficient to justify this conclusion. The sum total of the factors to be weighed in estimating the probable value of the Sulphide canyon group would seem to indicate that it has the highest prospective value of any group of claims in the Ray district outside of the property of the Ray Consolidated Copper Company and the Arizona Hercules Copper Company whose proven ore bodies are very extensive.

Respectfully submitted,

Kelvin, Arizona.
May 8, 1916.

-----*A. H. Flagg*-----

REPORT
ON
SULPHIDE CANYON GROUP
NEAR RAY PINAL COUNTY ARIZONA.

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Respectfully submitted,

Kelvin, Arizona.
May 8, 1916.

----- A. L. Flagg -----

SEC. 15

SEC. 14

SURVEY N° 3383
Mineral Creek Mining District
PINAL COUNTY, ARIZONA
SCALE, 1 IN = 300 FT
Surveyed April 21-25, 1917
By Oliver G. Thompson
U.S. Mineral Surveyor

BLUEBIRD
UNSURVEYED

BEHRENS
SUR. 3031

EMDEN
SUR. 2826

ALBION
SUR. 2611A

U.S.M.M. N° 1



SEC. 22 SEC. 23
T. 3 S. R. 13 E.
UNAPPROVED