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10/29/91

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: COPPER CHIEF GROUP

ALTERNATE NAMES:

PINAL COUNTY MILS NUMBER: 367B

LOCATION: TOWNSHIP 4 S RANGE 14 E SECTION 12 QUARTER NE
LATITUDE: N 33DEG 06MIN 10SEC LONGITUDE: W 110DEG 52MIN 00SEC
TOPO MAP NAME: HAYDEN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

VANADIUM
TUNGSTEN
LEAD
SILVER
GOLD

BIBLIOGRAPHY:

ADMMR COPPER CHIEF GROUP FILE
UNSURE OF LOCATION EXCEPT 7 MIN. E. OF RAY
JUNCTION, 2 MI SE OF TROY

REPORT ON COPPER CHIEF GROUP OF CLAIMS,
of the
NATIONAL MOLYBDENUM COMPANY.

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LOCATION:

Property consisting of eight deeded claims is situated about seven miles from Ray Junction, two miles East of U. S. Vanadium Camp, and about two miles south-east of Troy, Arizona.

FORMATION:

Country rock is quartzite and schist capped with limestone and cut by monzonite dikes.

VEIN:

The vein is a contact between the quartzite and monzonite, having a width of twenty feet with a dip of about 25° to 40°. A foot of spar is found on the foot wall.

GANGUE:

The vein matter in the most part is very soft and friable, much of it having the appearance of a soft blue sandstone. It has been described as a silicious clay formation.

ORES:

The ores are Vanadinite, Wulfenite, lead, silver, and gold. The vanadinite and wulfenite occurring as to be easily sorted before milling.

VALUES:

The vanadinite produces a high grade concentrate running 8.36% vanadium. The wulfenite is also a high grade ore, the concentrates treated by pan method carrying 26%

MoO₃. The lead ore runs 67% pure with 8½ ounces of silver.

DEVELOPMENT:

The development work consists of nearly 500 feet of tunnel, shaft and cross-out work.

In the workings of tunnel No.1, a deposit of high grade wulfenite was encountered in the lime, much of it running 50%. Tunnel No. 2 is a drift tunnel starting at the west end of claim No. 8 where the vein outcrops in a ravine. Here vanadium ore shows in the outcrop for a distance of not less than 20 feet across the vein.

A good milling vanadinite ore was encountered in this tunnel all the way until the foot wall was broken through at a point about 50 feet from the portal of the tunnel. The drift was carried 10 feet farther to determine the nature of the formation. At a point about 60 feet from the portal a cross-out was run for a distance of 25 feet without reaching the hanging wall. In this cross-out about 10 feet of wulfenite ore was encountered with nearly a foot of lead-silver ore, and a body of good grade vanadinite nearer the hanging wall side.

On the opposite end of the claim a 10 footshaft has been sunk showing good milling molybdenum ore increasing in value with depth. Here was found two inches of sulphide ore that assayed \$246.00 in gold silver and lead.

SUMMARY:

In summing up I may say that I have never seen a better formation for a large ore body than is to be found on this property, and I believe if a small dry concentrator, of 10 tons capacity, were installed it could be made to pay from the start, and it would not be long before the capacity

would have to be increased to keep up with the output of the mine. It is not unreasonable to expect that silver-lead ore should be recovered to more than pay for all mining operations.

Road building is not an essential feature as an efficient type of mill can be transported easily over the trail.

The market at this writing is \$450.00 per ton for wulfenite running 15%. Los Angeles buyers are in the field for vanadium ore running 5%, at \$20.00 per unit, F. O. B. point of shipment.

John E. Chapman