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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: ROCKETT PROPERTY

ALTERNATE NAMES:
RED MOUNTAIN

PINAL COUNTY MILS NUMBER: 308

LOCATION: TOWNSHIP 4 S RANGE 12 E SECTION 4 QUARTER W2
LATITUDE: N 33DEG 06MIN 43SEC LONGITUDE: W 111DEG 07MIN 50SEC
TOPO MAP NAME: NORTH BUTTE - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
MANGANESE

BIBLIOGRAPHY:
ADMMR ROCKET MINE FILE
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DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Rockett Mine (Red Mountain)

Date September 13, 1960

District Florence District (Red Mountain)
Pinal County

Engineer Lewis A. Smith

Subject: Conference with M.L. Gibbs at Casa Grande

Mr. Gibbs and Charlie Prose have removed the waste capping which was over a portion of the manganese deposit at the Rockett mine. This cleared an area 140 feet long and 25 feet wide. The manganese bed dips about 70 degrees under a late rhyolite flow and is associated with an andesite porphyry dike which probably induced the mineralization. The ore is mainly composed of pyrolusite with some altered andesite fragments. A fault with 1-2 feet of red gouge, splits the dike and was heretofore considered the east boundary of the manganese bed. However, Gibbs cut through this gouge in two places and found manganese ore similar to that west of the gouge zone. It was suggested that they long-hole the area east of the fault to determine how far east the ore goes. This fault has been called the Red Mountain fault by Prose. The area east of the gouge was partly stripped by Stovall to clear the ore west of the fault.

The beds, as now exposed, run between 25 and 35% manganese.

Stovall showed that by screening and sink float, the ore could be beneficiated up to 52%. Gibbs reports that he had an offer, still pending, for mine run (30%) ore of \$23.00 per ton f.o.b. Cochran. He is also dickering with Anaconda to supply concentrates to their Grant, New Mexico mill. This would serve as an oxidant, but would have to run close to 50% manganese. However, the pyrolusite is free of the andesite and could be separated readily by jigs. It was recommended that he contact Stewart Enterprises or Hans Christofferson, both of whom at last report, had Yuba jigs which might be obtainable.

Rockett Mine Located $1\frac{1}{2}$ miles N.E. of Cochran, Pinal County. Steep curved road (LAS) Crosses the Gila River above Cochran, if the road uses the same crossing as the old road up river from Cochran.

Memo FPK 7/25/63

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Rocket Mine (Red Mountain)

Date May 21, 1959

District Riverside District, Pinal County

Engineer Lewis A. Smith

Subject: Mine and Mill visit

360 University St Cambridge PA 35728
Owner: Reported to be M. L. Gibbs, 1142 East Highland, Phoenix, Arizona, and Prose.

Operators: Al Stovall and De Los Rios

Ore Buyer: Al Stovall, 1644 Palmcroft Drive, Phoenix

Mill Supt.: Ralph Godfrey

Mill Operator: Al Stovall

Work: The property was originally drilled by Roberts Associates. Some stripping was done by them.

The present mine consists of a bulldozer cut 125-150' long and 45' deep at the deepest place. The cut is 15-25' wide and occupies the bottom of a canyon. The east side of the cut has been opened by a second bench for working room. The ore exposure is about 100' long and at least 40' high and it pitches 45° to the west under a rhyolite flow. The ore favors an andesite bed which underlies the rhyolite. Plans are to cut another bench to the west to eliminate the overburden (rhyolite) from over the pitching ore zone.

Mining is being accomplished by means of a D-8 Cat, Worthington Trench Drill (wagon type), Yaeger 365 Compressor, Pittabone-Millikan 3 yard trackscavator, Chambers 2½ yard trackscavator, while 2 Model C LeTourneau Tournapulls, of 25 ton capacity, haul the ore to the mill.

Mill: The mill is situated 1 mile west of the Gila River crossing. It is being run by Ralph Godfrey and consists of a 5 yard hopper which empties on a coarse screen. The product is then conveyed to crusher equipped with a hopper. Thence it goes to a screening plant which cuts out the 16[#] mesh (30% of total) which is stocked. ^{minus} The 1/4" ^{+14 mesh} material goes to Yuba jigs which have a 3 ton per hour capacity. The oversize goes to a sink float machine which yields ~~a plus to~~ 1/4" concentrate and a coarse middling. The jig and sink float concentrates are combined for shipment to Casa Grande. The tailings consist of (a) coarse andesite and rhyolite (1/4 to 3/4") and (b) fine washings which are wasted. The heads run 10-25% Mn and the concentrate runs 50-52% Mn. 98% of the feed manganese is pyrolusite. A coarse middling product from the sink float machine runs 40% Mn and is mixed with part of the 14 mesh fines to absorb the fines. The sink float uses atomized ferro silican and is run at a gravity of 2.25 to 2.35. The ferro silicon is in bee-bee like pellets. The plant capacity is 200 tons per 24 hours at present, but could be stepped up to 500 tons if ore can be furnished at that rate. 13 men are employed in three shifts. Part of the 14 mesh fines are shipped to Mohave for sintering.

Geology: The geology is typical of the Martinez Range namely:

- (1) Pre-Cambrian schists and granitic rocks
- (2) Andesite flows on peneplained older rocks.
- (3) Rhyolitic flows on eroded andesite surface.
- (4) Eroded rhyolite in places is overlain by rhyolitic agglomerates and the agglomerates are in turn capped by dacite (north part of range). To the east, basalt caps the dacite.

Locally the rhyolite was found to lie in valleys in the andesite flows or on top of a conglomerate which is mostly made up of andesitic material. The deposit itself lies on a fracture which cuts the flows at a small transverse angle to the flow contacts. The mine andesite pitches under rhyolite at a dip or pitch of 40° to 45° to the west. The average flow contact trends vary from place to place but near the mine it is nearly N-S. The manganese ore makes in the andesite-rhyolite contact and favors the andesite as a host rock. However, locally it engulfs broken floaters of rhyolite. The andesite and rhyolite are characteristically stained red by iron oxides, adjacent to the fracture zone. Two dikes of highly altered rock cut the flow to the west.