3130 0009

(119)

PROPERTY NAME: Modarelli Iron Mine

OTHER NAMES:

MINERAL COMMODITY(IES): Fe, Ba?

TYPE OF DEPOSIT:

ACCESSIBILITY:

OWNERSHIP:

PRODUCTION: See CRIB

HISTORY:

County: Eureka Item 9

Mining District: Modarelli - Frenchie

AMS Sheet: Winnemucca Creek

Quad Sheet: Frenchie Creek 15'

Sec. 30, T 29N, R 51E

Coordinate (UTM):

North 4468550 m

East 0562700 m

Zone +11

DEVELOPMENT: One large, terraced open pit trending N-NW about 400 - 500' in length & 100' wide. Crusher & stock piles of ore lie below open pit.

ACTIVITY AT TIME OF EXAMINATION: None.

GEOLOGY: NBM Bull. 53, Iron ore deposits of Nevada, has a good write-up on the geology & history of this mine.

The host rock for this deposit is the Jurassic Frenchie Creek rhyolite & rhyodacite Near the mine the volcanics are hydrothermally altered. Within the pit, the rocks are replace by hematite & limonite which are probably the oxidized products of magnetite.

The open pit explores varible grades of Fe-replaced rhyolite along a NW -trending zone. The pit is benched on the west side & is approximately 100-150' deep. On the east side of the pit there is a fault zone which strikes N60W, 70NE. The fault seems to bound the ore zone, as the replaced rock occurs south (or southwest) of this structure in the footwall. A large exposure of high oxidized hematitic ore occurs in the southwest part of the pit, probably at the intersection of the NW structure with an east -trending fault.(see USGS Bull. 1179) The most intensely replaced rock is located in areas of high fracturing.

Away from the main deposit, the volcanics appear to be chloritized (on fracture surfaces & replaced phenocrysts ). In general, the rocks are rhyodacitic in composition & show flow laminations (tuff or flow origin). Adjacent to the deposit the volcanic are silicified & display a light pink-brown groundmass & abundant altered plagioclase phenocrysts replaced by clay minerals & FeOxs. Quartz & biotite also occur as phenocrysts in the flow rock.

REMARKS: Sample 1527 was taken from ore stockpile near crusher. Most of Fe in the sample occurs in the form of specular hematite. Some quartz, apatite & barite(?) occur on fractures & in pods within ore.

Sample 1528 consists of silicified, gossany, Fe-stained volcanic rock which outcrops on road near the deposit.

SAmples 1527, 1528

Photos.

REFERENCES: NBMG Bull 53.

USGS Bull 1179, Geology of the Frenchie Creek Quad, north-central, NV 1964.

EXAMINER: Bentz

DATE VISITED: 7/29/82