

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland 5, Oregon

## IRON HILL CLAIM (Magnetite)

Malheur County

Owner: The claim was taken in September 1952 by Harry H. Schaffer, East Idaho Avenue, Ontario, Oregon, and Ralph V. Thurston, Payette, Idaho.

Location: T. 16 S., R. <sup>41</sup>42 E., secs. 9-10, Malheur County.

Development: All cuts were measured by tape as indicated on the map, but bearings are of assumed sketch accuracy due to inability to use a compass because of adverse magnetic influence originating from the mineralization present. The profile is likewise of purely sketch accuracy.

Massive magnetite is indicated by the cross hatched areas and the remaining portions of the cuts are occupied by disseminated ore, or barren country rock, as per the notations given on the map. The dashed lines delimit the inferred trace of the mineralized area as indicated by the workings and as further narrowed down by observed barren country rock float.

Geology: Basalt caps the divide between Brogan and Westfall. This divide lies a short distance (perhaps  $\frac{1}{2}$  mile) south of the claim, the south side of which coincides approximately with the bottom margin of the map. The basalt extends to within a few feet of the mineralized area. Otherwise the mineralized area occurs in a greenstone country rock comparable to both Gilluly's "Clover Creek" of the Baker quadrangle and Livingstone's "Permo-Triassic" of the Snake River Canyon below Huntington. This pre-Tertiary belt appears to extend for a distance of several miles along the northern flank of the divide and northward to the Brogan-Unity highway in the hill area just west of Brogan. The subject claim lies on the extreme southern margin of this exposure. A belt of limestone and the distinctive brick red and vivid green shales and conglomerates of Livingstone's "Gypsum formation" occur a half mile north of the property. The limestone extends diagonally up the hill in a roughly south of west direction from the foothills to the divide summit near Juniper Mountain for an estimated distance of a mile, but the "Gypsum formation" was observed only on the extreme eastern end of the belt at a point due north of the property. Basalt dikes are common in the greenstone area at large, and the greenstone breaks down into a fine rubble and yellow soil which resembles lake bed soil very much in color and plant growth so that boundaries between the greenstone pre-Tertiary areas and the abundant lake beds in the lower elevations of the Willow Creek country do not stand out very conspicuously when viewed from a distance.

The mineralized area of the claim is composed of both massive and disseminated magnetite. Overburden is fairly scant and some natural outcrops exist. The presumption to be gained from the present workings is that the massive magnetite is present in a series of independent lenses within the disseminated zone rather than as continuous bodies, but more prospect work will have to be done before the situation in this respect can be clarified. Except for possible extension to the eastward as indicated below, the mineralized area is clearly demarked by barren greenstone country rock and no other indications of mineralization were noted, or reported, as occurring in the area immediately surrounding the claim.

List of Samples

No. 1 Typical country rock from this general area.

No. 2 Magnetite fragments gathered from the width and breadth of all exposures shown (Sample No. 2 on map), both natural and artificial.

P-14399	SiO <sub>2</sub> . . . . .	39.05 %
	Fe . . . . .	41.57 %
	S . . . . .	0.013%
	Phos. . . . .	0.127%

see spec

No. 3 Red hematitic material with some contained magnetite.

P-14400 Fe . . . . . 42.57 %

No. 4 Leached limonitic material, soil, etc., 32 feet.

P-14401 Fe . . . . . 30.90 %

No. 5 Finely broken rock with limonitic streaks and local, small bunches of magnetite, 58 feet.

P-14402 Fe . . . . . 27.34 %

No. 7 Rock pretty well loaded with bunches and streaks of magnetite. Sample selected to include specimens which show copper stain, 44 feet.

P-14403	Fe . . . . .	56.80 %
	S . . . . .	0.025%

No. 8 Typical country rock.

Report & map by: N. S. Wagner

5-8-53

Examined:

5-5-53



STATE DEPARTMENT OF GEOLOGY  
AND MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING  
PORTLAND 1, OREGON

Dec 17 1953

General Laboratory Number P-15439

Date received \_\_\_\_\_

Spectrographic Laboratory Number \_\_\_\_\_

Sample received from H. Dole

QUALITATIVE SPECTROGRAPHIC ANALYSIS  
(Quantities estimated to nearest power of ten)

1. Elements present in concentrations over 10%.

Si Fe

2. Elements present in concentrations 10% - 1%.

Al

3. Elements present in concentrations 1% - 0.1%.

Mn

4. Elements present in concentrations 0.1% - .01%.

Mg Ca Na K Ti Cu

5. Elements present in concentrations .01% - .001%.

Cr Mo V Ba Ni

6. Elements present in concentrations below .001%.

TC

Thomas C. Matthews, Spectroscopist

TC