

FARRIER RANCH IRON PROSPECT

YAMHILL COUNTY

Owner: R. Farrier, 6038 N. E. 29th. Avenue, Portland, Oregon.

Location: ~~The property lies in the W $\frac{1}{2}$, NW $\frac{1}{4}$ section 4 and the E $\frac{1}{2}$, NE $\frac{1}{4}$~~
section 5, T. 3 S., R. 2 W., and ~~in the SW $\frac{1}{4}$ section 3,~~ T. 2 S., R.

2 W. The open pit, the only locality in which iron ore is exposed, lies near the center of the SW $\frac{1}{4}$, NW $\frac{1}{4}$ section 4, at an elevation of 1125, about 300 feet south of the crest of the ridge.

Area: Deeded land, acreage not given.

History: Not much is known about the history. Much of the ranch is set out to walnut trees, which have not flourished, due to the thinness of the

soil. Hematite float discovered ^{on the ranch} ~~in the orchard~~, and a test pit was opened up in

1940.

Development: One pit, 18 feet long in a N. 75° E. direction, was dug ^{exposing} ~~to expose~~

ore at a depth of from 2 to 3 feet, under a reddish soil. Ore is from 3 to 4 feet thick in the pit, which is from 5 to 7 feet deep. Two other test pits were dug; one 90 feet south of the main pit being ⁴ four feet deep in soil, and ^{one} ~~an~~ 80 feet east of the main pit being ³ three feet deep where decomposed vesicular basalt was encountered.

Geology: The Chehalem Hills are predominately composed of deeply weathered

basalt. The soil mantle varies in depth from 2 or 3 feet to at least 20 feet in places. Solid outcrops of relatively unaltered lava are rare, and only a few ^{basalt} boulders appear.

The basalt ^{contains} from which the iron formation ^{is} ~~is derived~~ was highly vesicular, and was replaced by hematite in such a manner as to preserve its original structure. Besides the vesicular character, the coarse jointing of the lava is also well preserved in the hematite. A few of the vesicles have calcareous fillings, but most of them are empty. Below the layer of hematitic material lies a layer of heavy yellow clay.

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A fifty pound sample, 4 feet long and 6 inches wide, was taken from top to bottom of the exposed hematitic material. This sample analyzed 52.3 percent iron.

The deposit, as indicated by its occurrence in the pit, is probably a small isolated body ^{of} without appreciable tonnage.

Report by: J.E.A., ~~May~~ 1940.