

OFFICE MEMORANDUM
1/
WEST IRON MINE
Eureka County, Nevada

4100 0002

(121)
item 2

Location

"The West iron deposit is in section 7, T. 31 N., R. 51 E., M.D.M., Eureka County, Nevada. It is at the junction of Safford and Palisade canyons, several hundred yards south of the Southern Pacific and Western Pacific railroads, which pass through Palisade Canyon." It is about 3 miles, by road, west of Palisade.

Description of the Property

"This deposit is owned by the Southern Pacific Land Co. According to 2/ Jones, the iron occurs probably as a replacement deposit from 60 to 150 feet thick, dipping 40 degrees to the north and east. The country rock is andesite. The ore is massive and compact hematite, with probably a little magnetite, and contains quantities of quartz, fluor-apatite and phlogopite."

Transportation

The property is readily accessible to the Southern Pacific and Western Pacific railroads, a few hundred yards to the north.

Physical Features

No electric power is available, but adequate water supply would be available from the Humboldt River. Nearest housing facilities are at Battle Mountain and Elko.

Tonnage and Grades

"From 1907 to 1915 the deposit was worked by the American Smelting and 1/ Quotations from Information Circular 7022, June 1938. Reconnaissance of Mining Districts in Eureka County, Nevada, by William O. Vanderburg. Pages 59 and 62.
2/ Jones, J. Claude. The Barth Iron Ore Deposit: Econ. Geol.; vol. 8, 1913, pages 247 - 263.

Refining Co. for fluxing material. After this company relinquished its lease, the property remained idle. Former operations were confined largely to an open pit approximately 200 feet in diameter and 60 feet deep, which is now filled with water. Below the bottom of the pit is an inclined shaft 180 feet deep from which two levels, spaced 50 feet apart vertically, have been driven. There is no usable equipment on the property.

The following analyses, made by Professor Walter S. Palmer of the Mackay School of Mines, indicate that the ore is of a uniformly high non-Bessemer quality.

	<u>Upper Level</u> <u>Percent</u>	<u>Intermediate Level</u> <u>Percent</u>	<u>Lower Level</u> <u>Percent</u>
Insoluble	1.98	1.80	0.45
Ferric Oxide (Fe_2O_3)	95.15	89.19	98.44
Ferrous Oxide (FeO)	None	None	None
Alumina (Al_2O_3)	1.85	3.52	1.16
Cupric Oxide (CuO)	0.43	1.94	Trace
Phosphorous Pentoxide (P_2O_5)	not det.	0.69	not det.
Ignition Loss	<u>0.44</u>	<u>2.53</u>	<u>0.05</u>
Total	99.85	99.67	100.10
Total Iron (Fe)	66.54	62.37	68.84

The production of iron ore from the West mine for use as a flux in smelting operations in Salt Lake Valley has been about 300,000 tons."

No estimate of ore remaining in this deposit has, so far as is known, been made.