

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

FERRO CLAIMS (Ni)

RECEIVED
NOV 9 1952

Illinois River Area

STATE DEPT. OF GEOLOGY
& MINERAL INDS.

Josephine County

Owner: David L. Evans, Consulting Geologist, 307 Kaufman Building, Witchita, Kansas, staked these claims in February 1953 in his name as an agent for the Climax Molybdenum Corporation, Climax, Colorado.

Location: Secs. 21 and 28, T. 38 S., R. 8 W., on the southeast side of Eight Dollar Mountain approximately between 2000 and 2800 feet in elevation. Ferro claims 17, 18, and part of 14, 15 and 16 are in sec. 28. The remainder of the claims--2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 are in sec. 21.

Area: 16 lode claims: Ferro 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17 and 18. In general twelve of these claims cover an area 4 claims long (6000 feet) extending N. 38° E. from a point approximately 100 feet west of the southwest corner sec. 21, T. 38 S., R. 8 W., and 3 claims wide (1800 feet) extending S. 52° E. from this point. Four lode claims: Alloy 1, 2, 3 and 4 were located by Evans on Free and Easy Mountain in Sec. 32, T. 38 S., R. 8 W., at the same time as the Ferro claims, but these were not examined.

History: David L. Evans, while employed by Freeport Sulphur Company, filed Eight Dollar 2 thru 12 (same location as Ferro 2 thru 12) in 1942. Apparently the Eight Dollar claims became invalid and Evans filed the same locations plus 5 more claims as Ferro claims in 1953. Fred Brooks, Mining Engineer for Climax Molybdenum Company, supervised the digging of the pits for the location work. Brooks and Herman T. Schassberger, Geologist for Climax, conducted a geological reconnaissance of these claims and other

potential areas of nickel-bearing laterite in southwestern Oregon and northwestern California in the summer of 1953.

Development: In 1942 discovery pits were dug on Eight Dollar claims 2 thru 12. On some of the claims two pits were dug and a 30-foot shaft on No. 4 claim. The attached sketch map of the claims shows the depths and locations of as many of these pits as Evans had recorded on a similar sketch. One discovery pit (4' x 10' x 6' deep) was completed on each of the 16 claims recorded in 1953.

Geology: Eight Dollar Mountain on which these claims are located consists almost entirely of peridotite. The predominant type of peridotite observed on the southeast slope of Eight Dollar Mountain was saxonite. Weathered saxonite in the vicinity of the claims is yellowish to reddish brown and studded with enstatite crystals.

Northwesterly across the area of the claims the surface rises from 2000 feet to 3000 feet in elevation in a distance of one-half mile. Due to this steep slope erosion has probably removed part of the original laterite blanket and has exposed numerous blocks of peridotite and strewn loose boulders over the surface.

A typical section of laterite, as revealed by the development work, changes from a dark reddish earthy material to a tan clayey zone containing yellowish brown to gray partially altered chunks of peridotite downward to partially decomposed blocky peridotite. Nickel-bearing material occurs to a depth of 30 feet in a shaft on Ferro No. 4 claim, but other exposures indicate the average thickness of laterite to be much less than this. On the south end of the claims numerous float boulders of silica boxwork occur, a few of which contained minute seams of garnierite.

Apparently supergene enrichment of nickel in the primary minerals of the peridotite has taken place in this area, but whether any of the zones of enrichment remain in place was not determined.

Samples of laterite contained from .47 to 1.25 percent nickel. Assay results of samples taken in 1942 by Evans are shown on the sketch map of the claims; and those of samples taken by the Department are tabulated below:

Sample from Ferro. No.	Sample No.	Percent Ni	Channel Length	Sample Description and Remarks	Altimeter Elevation
2	P-14586 (NG-219)	0.61	6'	2' red laterite and 4' tan laterite with "boulders"	2680'
3	P-14587 (NG-220)	0.71	6½'	3' red laterite and 3½' tan laterite with "boulders"	
4	P-14591 (NG-224)	0.54	6	2' red laterite and 4' tan laterite with "boulders"	2400'
5	P-14594 (NG-227)	0.62	4½'	2½' red laterite and 2' tan laterite with "boulders"	2260'
6	P-14588 (NG-221)	0.85	6'	2½' red laterite and 3½' tan laterite with "boulders"	2735'
7	P-14589 (NG-222)	0.60	6'	6' tan laterite with "boulders" and minor red laterite	
8	P-14590 (NG-223)	0.58	6'	1½' red laterite and 4½' tan laterite with "boulders"	
10	P-14585 (NG-218)	0.76	6'	2' red laterite and 4' tan laterite	2735'
11	P-14583 (NG-216)	0.57	2'	red laterite	2500'
11	P-14584	0.78	4'	tan laterite with "boulders" below P-14583	
14	P-14592	0.47	1½'	red laterite	2325'
15	P-14593	0.54	3'	red laterite with "boulders"	

Informant: David L. Evans

Visited by: D.J.W. and L.R. 6/24/53.

Report by: D.J.W. 10/20/53.