## State Department of Geology and Mineral Industries

702 Woodlark Building Portland 5, Oregon

## BUCHHEIT - HANDWERK CHROMITE

Illinois River Area

Disseminated chromite in dunite occurs in  $1\frac{1}{2}$ -2 foot stringers at various places over four claims. At one point a 4 foot band has chromite grains in a talc matrix. Considerable float is found in the upper six inches of soil over the property.

Owners: F. X. Buchheit, C. H. Handwerk, and Carl Myers, Selma, Oregon.

Location: sec. 30, T. 37 S., R. 9 W., on the west side of the Illinois

River, between 900-1500 feet above the River and a mile north of Dailey Creek and  $\frac{1}{4}$  mile south of Lightening Creek (called Green Creek by residents).

Area: Four claims; Dirty Face, Happy Jack, Burro, and Peach. Last located in 1942.

History: Henry Brazil and Mike Long located the claims during the last war and piled 20 tons of float which was never shipped. A small amount of trenching was done. Chet Zachery located the claims about 1938 and included the Peach claim (soft ore). Handwerk acquired a half interest from Zachery and gave a half (\frac{1}{4} of total) interest to Meyers.

Buchheit purchased Zachery's remaining half interest about May 15, 1942.

Development: Three cuts about 30 feet long each, and one cut 10 feet long.

Geology: Country rock principally is dunite, with some saxonite, which weathers to "buckskin rock". Chromite grains are concentrated in narrow zones which seem to follow definite trends. The ore itself would be classed as disseminated. On the Dirty Face claim, 1150 feet above the River is a trench that cuts 30 feet into the hillside. It is

reported that there is a six inch stringer of chrome at the face but the cut was badly caved. Considerable chrome float covers the hillside below this point. It has been collected in small piles and is reported to assay 49-51 percent chromic oxide. A ten foot cut, some 125 feet higher exposes a 12 inch zone of disseminated ore. About a bucketful of high grade came from the cut. A large cut, 1475 feet above the river, exposes an 18-24 inch zone of disseminated ore that is reported to assay 32 percent  $\text{Cr}_2\text{O}_3$  and 11 percent iron. This band trends at right angles to the other bands.

A cut on the Peach claim 875 feet above the River exposes chromite grains in a matrix of dunite that is completely altered to talc. The zone is  $3\frac{1}{2}$  feet thick, strikes N.  $30^{\circ}$  W. and dips  $38^{\circ}$  N.E. Within the soft mass are harder nodules of disseminated chromite grains in a moderately altered dunite matrix. The zone is overlain by soil and rubble and is underlain by serpentinized dunite.

About 40 tons of "soft ore", assaying 39.7 percent chromic oxide and 11.2 percent iron with a ratio of 2.4:1, (CG-551) are proven, and an estimate of possible ore is set at 100 tons.

The physiography of the general area suggests that the hillsides have slumped or slid so that it might be difficult to trace ore for any distance. Frequently, small outcrops of gneissic to hornblendic rock were seen. This material may represent a contact auriole with the general area being underlain by granitoid rock.

Informant: RCT, 8/6/42.

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The only high grade ore found was float, occurring in the top six inches of soil. About 20 tons have been piled over the hillside. Ore in place consisted of disseminated chromite with a dunite matrix, concentrated in 6 inch to 24 inch zones. These zones or bands probably are too narrow to work for a concentrating proposition, profitably, unless one charged his mining time off as prospecting.

The discominated zones occasionally have small "knots" of high grade ore and it is probable that these "knots" were the source of the high grade float.

A total of 60 tons of proven ore and 120 tons of possible ore is mated.

Ray C. Treasher Field Geologist August 19, 1942. estimated.