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STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING
PORTLAND 1, OREGON

June 4, 1957

Mr. Paul E. Lea
2146 Hillcrest Road
Medford, Oregon

CONFIDENTIAL

Dear Paul:

Enclosed is a copy of the assay report on the chip sample I took across the face of the tunnel at Paradise Chrome Mine, also a copy of the preliminary report I wrote after our brief visit there. I call it "preliminary" because I would like to map the immediate area of the mine in detail in the near future if time permits. There are some interesting and well exposed geologic features there.

The assay indicates that the ore could be concentrated barring any unforeseen milling problems. The high iron content will, however, undoubtedly present a serious problem. The surest way to determine whether the ore is amenable to concentration is to take some bulk samples and have them run at one of the custom mills. Perhaps you have already done this.

I think it unadvisable to install a mill at this time with the evidence of high-iron, low-chrome concentrates obtained on previous attempts. Another drawback is the short duration of the chrome buying program which is expected to terminate about September or October of next year, if the stockpile receipts continue at the present rate.

Perhaps your best bet would be to carefully hand sort the massive ore and if it is near acceptable grade, which it should be, purchase some high-grade lump ore or concentrates to mix with it for up-gradeing. The massive ore at the mine should have a higher chrome-iron ratio than concentrates of the disseminated chromite. I have found this to be true at nearly all the deposits checked.

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Another factor in favor of hand-sorting over milling is the fact that with the massive or nearly massive chromite ore there is always a large percentage of the chromite lost as slimes in the milling process. A loss of up to 40% of the chromite is not uncommon with the type of ore you have at the Paradise.

Best regards.

Sincerely yours,

LR:ams
incl.

Len Ramp
Geologist