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State Department of Geology and Mineral Industries

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STATE DEPT. OF GEOLOGY
& MINERAL INDS.

ROUSH URANIUM OCCURRENCE

Lake County

Owner: John Roush of Lakeview, Oregon has filed on several claims.

Location: The claims are located in Lake County, at the head of Deep Creek in Secs. 1 & 2, T. 41 S., R. 21 E. A logging road goes up to the claims.

Geology: The area is underlain by acid flows, probably quartz dacite. These flows dip gently to the SE and they apparently represent the dip slope behind a block fault. Several joint sets truncate the rock at intervals as close as 2 feet. The most prominent set trends N. 70° W. and dips steeply to the SW. These joints have served as channelways for the solutions which caused alteration extending up to 2" on each side of the fracture. This alteration was undoubtedly caused by the circulation of ground water. The joints are often filled with iron and manganese oxides and hydroxides. Silicification and hematization has taken place very close to the fracture surfaces.

Radioactivity: The background for the area away from outcrops of the quartz dacite flows was .03 ^Rmr/hr. The average reading on the flow rock averaged from .05 to .07 ^Rmr/hr. The high radioactivity on the joints was from .10 to .15 ^Rmr/hr.

Hand-picked samples submitted by Mr. Roush assayed up to the 0.1 - .01% range in thorium. The highest assay was on yellow-brown joint-filling material with brown, altered rock containing thorium low in the same range. No uranium was detected by the spectrograph. No radioactive minerals ^{were} identified. Also present are the rare earth elements cerium, praseodimium, lanthanum, yttrium & ytterbium. These elements, with the

In the country rock or the vein filling? If in vein filling, question goes as transporting agent.

exception of yttrium and ytterbium, are enriched in the altered rock and joint filling material.

Samples collected from a 10 foot prospect pit dug by Roush were sampled. Samples were taken on a strong N 70 W, 80 SW joint. At points on the joint, 9, 7, 4, and 1' from the top of the pit, only the one 4' from the top showed more than a trace. This sample was .01% equivalent uranium. ^{U₂O₈} A sample of the country rock from the pit showed a trace of equivalent uranium but was lower than the other material.

Conclusions and Recommendations: The radioactivity of the Roush claims is due to a small amount of thorium and perhaps a very little uranium that is present in the acid flow rocks and has been leached and concentrated in an iron-manganese joint filling material. Ground water circulating through the joint sets provided the leaching and depositing agency.

It is the writer's belief that this occurrence of radioactivity is not commercial. The joints may tend to get tighter with depth and consequently the ability of ground water to concentrate the radioactive material would be decreased. Samples taken from the pit show no increase in radioactivity with depth.

Assay Data: Assay data is from OG-369-373, spectrographic analyses OG-344 (3).

Report by: Max Schafer

Visited by: Max Schafer. Sept. 9, 1954.