Map from following article:

Distribution of fluorine in unaltered silicic volcanic rocks of the western conterminous United States, R. R. Coats, W. D. Goss, and L. F. Rader Economic Geology, vol. 58, 1963, p. 941-951.

Homap thrown out or re-filed, mark in Econ. Geol. copy.



UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Geologic Division
Southwestern Branch
345 Middlefield Road
Menlo Park, California

January 10, 1963

Mr. R. E. Corcoran Geologist, State of Oregon Dept. of Geology and Mineral Industries 1069 State Office Building Portland 1, Oregon

Dear Mr. Corcoran:

Enclosed herewith is a print of the original illustration for the published report on beryllium in volcanic rocks, showing the location of sampled rhyolitic rocks.

Many of the sampled rocks were welded tuffs. It is true that these may have large quantities of fluorine, relatively speaking. Fluorine seems to be quite firmly bound at high temperatures, just as it is in fluor-micas and fluor-ampiboles, which can be synthesized in open crucibles at atmospheric pressures.

Sincerely yours,

Robert R. Coats

Geologist

Enclosure

January 8, 1963

Mr. Robert R. Coats, Geologist Geologic Division, Southwestern Branch 345 Middlefield Road Menlo Park, California

Dear Mr. Coats:

In reply to your letter of January 4, I would like to obtain a copy of the map you offered to send me showing the location of the silicic volcanics sampled in your report.

Although you do not mention it specifically, did you also analyze any welded tuffs? I have heard that these sometimes contain relatively large amounts of fluorine, but I have never seen any reports to that effect.

Sincerely yours,

R. E. Corcoran Geologist

REC:1k



UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY Geologic Division Southwestern Branch 345 Middlefield Road Menlo Park, California

January 4, 1963

Mr. R. E. Corcoran Geologist, State of Oregon Dept. of Geology and Mineral Industries 1069 State Office Building Portland 1, Oregon

Dear Mr. Corcoran:

I regret that such a compilation of information about individual samples as you request has not been assembled. All of the rock samples are silicic volcanics; mostly rhyodacite and rhyolitic vitrophyres, perlites, and obsidians.

The sample sites were plotted with considerable precision on the original map, and if you cannot obtain the information you require from an enlargement of the published map, I think we could supply you with a reprint of the original map at the original compilation scale. The fluorine contents are dealt with in another paper which should be published soon.

Yours very truly,

WALNT

Robert R. Coats

Geologist