Flint - Int. 3749 SUPERSEDED by Bull 1155

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

GEOLOGICAL SURVEY

For Release TO PM's, AUGUST 19, 1955

RADIOACTIVITY ANOMALIES REPORTED IN ALASKA

Location of a number of radioactivity anomalies in interior Alaska by the Geological Survey, acting on behalf of the United States Atomic Energy Commission was announced today by Acting Secretary of the Interior Clarence A. Davis.

Graphically recording the radioactivity responses, a 4-inch scintillation crystal was used in a light "bush" plane flying at an average elevation above the ground of about 100 feet and at a speed of about 80 miles per hour. The radioactivity anomalies were located earlier this summer and have not been checked on the ground. It is cautioned that the data give only those localities of greater than average radioactivity and only suggest areas favorable for prospecting for uranium and thorium deposits. The north latitude and west longitude coordinates which follow have been taken from the 1:250,000 scale reconnaissance topographic maps published by the Geological Survey. These maps may be consulted or purchased at Geological Survey offices in Alaska at Fairbanks, Anchorage, and Juneau.

The anomalies located in the vicinity of 65°52' N. - 151°02' W. are on the north side of the Ray Mountains as shown on the Tanana quadrangle. On the Tanana and Bettles quadrangles an anomaly was recorded at about 66°00' N. - 151°02' W. Little is known about the geology of the Ray Mountains except that they are known to contain granite and metamorphic rocks, and are bounded on the east and west by greenstone.

Northeast of the Ray Mountains in the headwaters of the Kanuti River, several radioactivity anomalies were located on the Bettles quadrangle at 66°21' N. - 150°27' W.; 66°30' N. - 150°27' W.; 66°33' N. - 150°16' W.

An anomaly was recorded near Hughes on the Hughes quadrangle at 66°03' N. - 153°55' W. This anomaly occurs near the contact between granite and the intruded sedimentary rocks.

In the area between Hughes and the Kokrine Hills and in the Kokrine Hills, several radioactivity anomalies were noted. Some of the anomalies are along the contact between granite and metamorphic rocks. The coordinates of these areas on the Melozitna quadrangle are: 65°35' N. - 153°58' W.; 65°27' N. - 153°48' W.; 65°10' N. - 154°04' W.; 65°55' N. - 154°04' W.

Anomalies were found at the north end of the Kuskokwim Mountains, south and southwest of the Cosna-Nowitna divide, in an area of volcanic rocks intruded by granite. Anomalies were found on the Kantishna River quadrangle at 64°07' N. - 152°56' W.; 64°10' N. - 152°22' W.; on the Ruby quadrangle at 64°08' N. - 153°14' W.

Several radioactivity anomalies were found northeast of Fairbanks in the Circle Springs-Preacher Creek areas. Near Preacher Creek, granite pinnacles about 50 to 100 feet high occur generally along the ridge tops. Some of these granite areas were found to be more radioactive than others. The location of the more radioactive anomalies are: on the Circle quadrangle 65°28' N. - 144°39' W.; 65°36' N. - 146°02' W.; 65°38' N. - 146°45' W., and on the Livengood quadrangle at 65°31' N. - 147°20' W. in the western part of the White Mountains.

Several radioactive areas were recorded on the Eagle quadrangle at 64°29' N. - 143°59' W.; 64°40' N. - 143°43' W.; 64°46' N. - 141°15' W.; 64°47' N. - 141°59' W.; on the Tanacross quadrangle at 63°39' N. - 142°15' W.; 63°44' N. - 141°38' W.; 63°39' N. - 141°20' W.; 63°39' N. - 141°34' W.; and on the Big Delta quadrangle at 64°03' N. - 144°05' W. Some of the radioactivity anomalies observed near Mt. Fairplay and Charley River occur near the contact between granite rocks and volcanic rocks of rhyolite composition.

On the Shungnak quadrangle radioactivity anomalies were found southeast of Purcell Mountain at 66°11' N. - 157°04' W., and northeast of Purcell Mountain at 66°27' N. - 157°01' W.

An anomaly was located on the Survey Pass quadrangle between the Alatna River and Tobuk Creek at 67°07' N. - 153°21' W.

A moderate amount of radioactivity, about 0.004 percent equivalent uranium, is common in granitic rocks. In the areas traversed granitic rocks may account for some of the radioactivity anomalies, although this cannot be determined without ground investigation.

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