

REPORT ON A MAGNETITE OCCURRENCE NEAR BOUNDARY,
EAGLE QUADRANGLE

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In 1958 Jack Wilke and George Robinson, placer miners in the Forty-mile District, discovered a large outcrop of magnetite-bearing igneous rock a few miles south of Boundary. In 1959 they staked five claims on the outcrop in hope that it would prove to be of commercial importance for its iron content. On August 25, 1959, while in the Fortymile District, I examined the outcrop and took five samples. Analyses of the samples by Donald Stein, Assayer at the Division of Mines and Minerals Assay Office at College, showed that the rock contains too little iron to be of value (Table I). Figure I shows the location of the outcrop.

On August 25, accompanied by the two owners, I traveled on foot from George Robinson's placer mine to the claims, examined the outcrop, and returned to Robinson's. We started at 1 p m and returned at 7 p m. A violent wind storm accompanied by rain and hail struck shortly after we reached the crest of the ridge and continued until evening. Although the storm precluded the taking of photographs and hampered the examination somewhat, it did not prevent us from covering the entire outcrop.

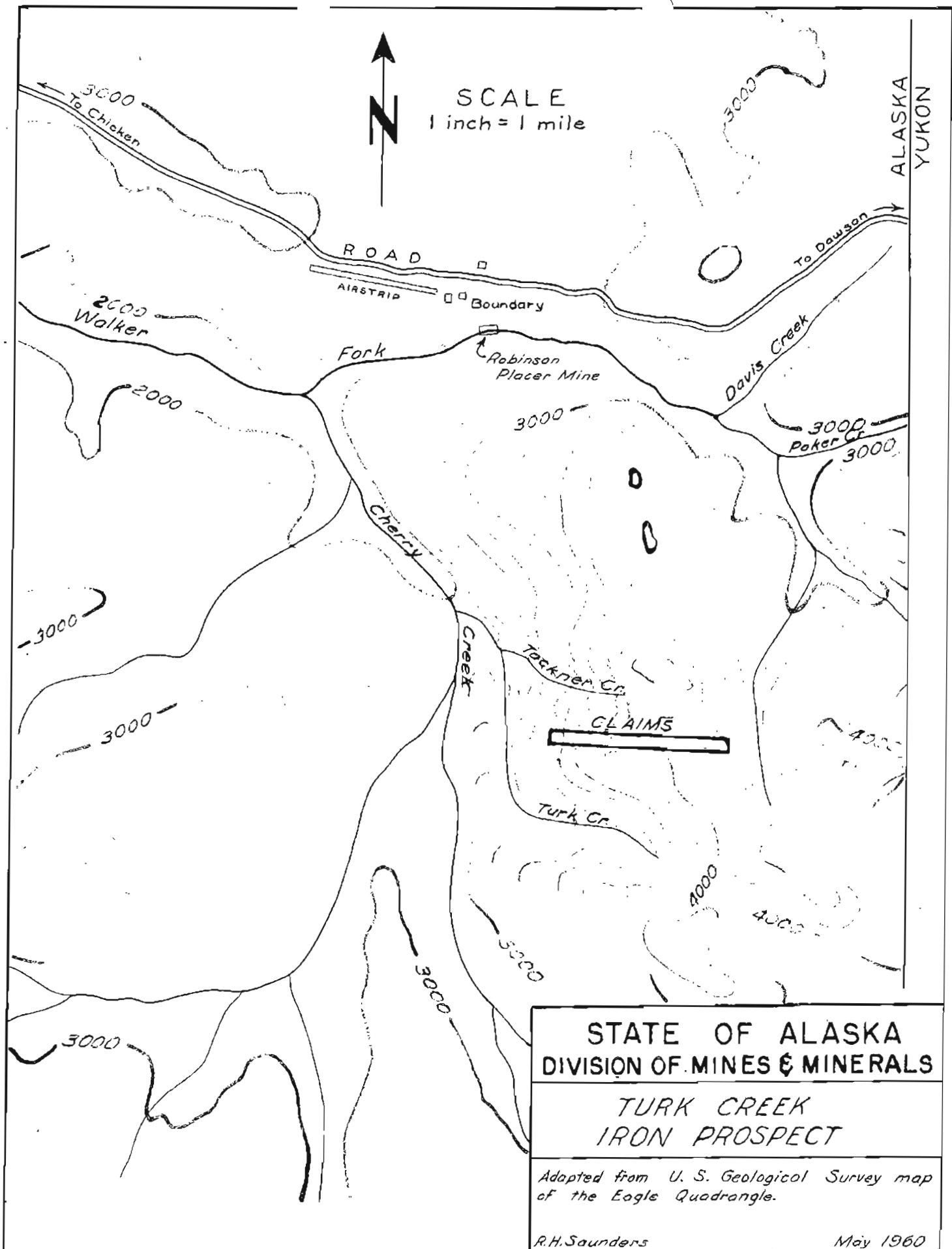
The samples were taken by chipping pieces from the outcrop at intervals of 30 to 40 feet, working from one side of the outcrop to the other across the full width and along the length. The samples were taken in order from the east end of the outcrop to the west end. The western part of the outcrop appears to contain somewhat more magnetite than the eastern part, and this is corroborated in a general way by the results of the assays.

The exposure of magnetite-bearing rock is 400 to 500 feet wide and it extends approximately the length of five claims. At the western end the rock type changes, and talc has been found at the extreme western end of the claims. At the eastern end, the magnetite-bearing rock disappears under a talus slope. The size of magnetite crystals in the rock ranges from one-eighth to three-eighths inches. There appears to have been little or no surface alteration of the magnetite. Apparently the rock is one of the amphibolites described as a part of the Birch Creek schist formation by J. B. Mertie, Jr. in U. S. Geological Survey Bulletin 872, THE YUKON-TANANA REGION, ALASKA. The amphibolites are considered to be the metamorphic derivatives of pre-Cambrian igneous rocks.

TABLE I

<u>Sample Number</u>	<u>Per Cent Iron</u>
2	7.88
3	7.66
4	8.33
5	8.43
6	8.32

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STATE OF ALASKA
DIVISION OF MINES & MINERALS

TURK CREEK
IRON PROSPECT

Adapted from U. S. Geological Survey map
of the Eagle Quadrangle.

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