

PE-103-03

TERRITORY OF ALASKA
DEPARTMENT OF MINES

PROSPECT EXAMINATION REPORT

"FOLLY" COPPER CLAIM

(MESSRS. PFAFF, SARGENT, ALSWORTH, AND GILL, OWNERS)

PAINT RIVER AREA, KAMISHAK BAY REGION, KOKHANOK PRECINCT

ILIAMNA QUADRANGLE

ALASKA PENINSULA

By

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Territorial Mining Engineer

May 1956

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APPENDED:

1955 Report on the McNeil Copper Mineral Claim
Group on Paint River.

Map I. (Showing location and general geology
of district).

See page 3-1

REFERENCES:

U.S.G.S. Bulletin 773-D

1955 Report on the McNeil Copper Mineral Claim
Group (Same ownership).

SUMMARY

The copper occurrence in the basic rock on the north rim of Canyon Creek is considered of sufficient interest to warrant more intensive prospecting, with efforts directed toward determining its width and lateral extent on its assumed northerly strike. It is possible that trenching and stripping, to the north, will indicate a tonnage potential of low grade copper, that would justify a diamond drilling exploration program. No indications of its continuation to the south has been found and none were observed during the reconnaissance investigation last fall.

The section west of the old adit showing \$3.50 in gold, should be more thoroughly investigated by the owners, and its limits determined. The presence of low grade copper values could make this occurrence of real interest.

The magnetite occurring in the granite nearby, is not, at present, of special interest.

In event future exploration and development proved presence of a large body of low grade copper-gold ore, it is favorably located for exploitation, being 12 to 15 miles from tidewater and having favorable grades, and good ground for road building.

INTRODUCTION

At request of Mr. Ernie Pfaff, one of partners owning the McNeil group of copper claims on Paint River, a brief reconnaissance was made of the copper showings on the Folly mineral claim, located on north side of Canyon Creek. This was done on September 13th, 1955. Five hours were spent examining the mineral occurrences.

LOCATION AND ACCESSIBILITY

This prospect is located at approximate geographical coordinates Longitude $154^{\circ} 30'$ west and Latitude $59^{\circ} 15'$ north. Taking off from Pilot Knob Lake, 3 miles north of the McNeil camp, at 9:25 A.M., landing was made on Big Lake five minutes later, where owners of the McNeil group have a base tent camp at southeast corner of Big Lake. By trail it is 10 miles from their Paint River camp. Big Lake drains into a smaller lake to the south and both are headwaters of Lake Fork creek, a short northerly tributary of Paint River, draining into Kamishak Bay 12 to 15 miles to the east. It is an area easy to traverse on foot.

The principal copper showings are located $1\frac{1}{2}$ to 2 miles east of camp, in face and at base of canyon rim cliff on north side of Canyon creek, at an estimated 1800 foot elevation above sea-level. * The creek flows westerly and enters Big Lake about midway on its east shore. From the tent camp a trail has been brushed-out through dense growth of alder and willows a half mile or so to an estimated elevation of 500 feet, above the lake; from this latter point, the ground is largely bare of vegetation.

Canyon Creek was named by Mr. Pfaff; it is unnamed on government maps.

Big Lake is a thirty minute flight south of the Iliamna Trading Post.

Iliamna is a regularly scheduled stop of Pacific Northern Airlines from Anchorage to King Salmon. *

TOPOGRAPHY

This area is one of well rounded mountains, typical of glaciated regions, with elevations rising to 2300 to 3000 feet above sea-level. To the north and to south shore of Iliamna Lake, there are numerous small lakes. *

* Refer to Plate 8, McNeil Copper Claim Group, 1955 Report, attached.

TIMBER, VEGETATION, AND CLIMATE

These conditions are the same as in vicinity of the McNeil Copper claims. **

HISTORY AND OWNERSHIP

The Folly mineral claim was located in August 1954, by Ernie Pfaff, of Naknek, Alaska. Ownership is held by the Sargent, Pfaff, Alsworth, and Gill partnership, who are also co-owners of the McNeil Copper Claim Group.

This is a "re-discovery" of an old copper prospect. The original discoveror's name and year of discovery are not known, and no mention has been found in the U.S. Geological Survey Bulletins concerning it. However, it is thought that its original discovery was probably made during period when C.H. McNeil and Associates were active in the district.

Work done by early day locator was limited to a 15 foot adit and 20 foot trench leading to it, and several small cuts on steep (and precipitous) slopes on north side of Canyon Creek. Work performed since relocated by Mr. Pfaff has been limited to several trenches in prospecting the ground last year.

GEOLOGY

Except for the dark green basic rock in which the principal copper showing occurs, the immediate vicinity is limited to granite. The older sediments and metamorphics of the district are one half to one mile to south.

Canyon Creek is deeply intrenched (125 to 250 feet) in the granite and follows a fault zone for about three quarters of a mile in its westerly course between the 2000 and 1500 foot elevations. The canyon is narrow with precipitous cliffs along its rim and 35 to 50 degree slopes below them.

At several points north of the rim an acidic dike (or dikes?) was noted at several points but carried no copper mineralization where observed.

The main showing is located in an irregularly shaped dark green (largely hornblende of moderate texture) basic dike or mass exposed in the canyons north rim. Its attitude suggests a westerly dip and northern strike, but it has not been traced to the north under the shallow mantle (few inches to several feet) of residually weathered granite and glacial drift to determine whether it continues in that direction.

** Refer McNeil Copper Claim Group, 1955 Report.

This rock type (shattered and "scaly") is not evident in south canyon wall, and appears to terminate about 100 feet vertically below canyon rim, a short distance below the old adit. Its termination may be due to a northwesterly striking fault, a short distance west of the adit.

Mineralization

At the principal showing on north side of canyon rim mineralization is limited to malachite, chalcopryrite, with malachite predominating. It occurs in a strongly sheared sericitized zone of the altered dark (basic) rock mass of somewhat irregular outline, which is, at least 100 feet wide on cliff face and is exposed vertically, an estimated 100 feet.

Width of mineralization 15 feet below canyon rim appears to be, at least 25 to 35 feet. Of this only 50 inches was readily accessible and sampled. Its width may be greater as cliff on the east and south side, as well as immediately above, was inaccessible. Mineralization was noted along base of cliff (for about half the distance) while making decent on a narrow, steep ledge to the old adit, (a distance estimated at 180 feet) but without ropes it was too hazardous to stop and sample.

The adit shows only a little disseminated pyrite, and chalcopryrite with occasional traces of malachite. The 20 foot trench leading to portal is cut through the oxidized(basic) rock type, the iron stain coming from disseminated pyrite.

Beyond the adit trench, 30 feet to the west, is another old open cut in similar oxidized rocktype, which also carries disseminated pyrite with possibly a little chalcopryrite. This oxidized zone is an estimated 75 to 100 feet in width, which extends up the steep slope to canyon rim. In an accessible 23.5 feet, chip sample was taken of 4 exposed bedrock sections totaling 8.5 feet. Pyritization was heavier, a little malachite was noted, and cupriferous pyrite and/or small amounts of chalcopryrite was believed present. Assay of the sample, however, showed only trace of copper. It is interesting to note that this sample carried 0.10 ounces in gold, and a little silver.

Strike of this wide shattered zone is considered to be northerly, although it has not been traced by trenching north of canyon rim. In support of that strike is Mr. Pfaff's report of finding "float" of similar rock type, containing a little chalcopryrite, several hundred feet down the mountain slope of the projected north strike.

At an estimated 700 feet north of canyon rim showing and several hundred feet below its projected strike, a granite outcrop carries

appreciable amounts of chalcopyrite as disseminations and fine, short veinlets across 1 foot.

At an estimated 200 feet southeast of last noted occurrence, Mr. Pfaff has dug down 3.5 feet in kaolinized granite where some malachite stain is present. This pit is on north side of a shallow depression, which is undoubtedly surface expression of an east-west fault plane.

The thin mantle of residual material on the mountain slope, resulting from weathering of the granite, as well as the granite itself, carries an unusually high percentage of fairly fine grained magnetite. In places the residual material is largely magnetite, and at numerous points the exposed granite bedrock was estimated to have as much as 10 to 30 percent (estimated) magnetite. Observations of this interesting occurrence was limited to an area at points north of canyon rim for 300 to 400 feet, and between estimated elevations of 1500 to 1800 feet.

The south walls of Canyon Creek appears to be granite which shows great deal of iron discoloration but no copper stains. As previously noted, the basic dike (or irregular mass) is not evident on the south side; the south wall was too steep to scale.

Sampling

Only two samples were taken of the principal showings on north side of creek, due to hazard in working on the steep slope without ropes, and lack of time. Results of these are as follows:-

Sampling Results

| Sample No. | Width in. | Au oz | Ag oz | Cu % | Description |
|------------|-----------|-------|-------|------|--|
| 10-McN | 50 | nil | 1.00 | 1.65 | Folly claim outcrop 15 ft. below No. rim of Canyon Cr. Accessible section of 25 to 30 ft. sheared zone of basic rock. Abundant malachite stains & some chalcopyrite & pyrite. Full mineralized width not determined (due precipitous slopes) but is probably over 25 ft. |
| 11-McN | 102 | 0.10 | 0.80 | Tr. | Folly claim. Estimated 200 ft. west of 10-McN. Chipped from 4 points of exposed bedrock in 23.5 ft. width. Oxidized basic rock showing some pyrite, little chalcopyrite & little malachite stain. |

No radioactivity was found in the samples or specimen taken.

CONCLUSIONS

-6-

Width of mineralization in the strong sheared zone from which sample 10-McN was taken, and which may be found to be greater than the 25 to 35 feet mentioned above, may prove of real interest. It is believed that there is a fair chance systematic trenching at intervals across its assumed northerly strike for 600 feet or more, ~~which~~ may indicate a low grade copper deposit whose potential magnitude would justify diamond drilling.

Further work and sampling of the section to west of the old adit, where 0.10 ounces in gold and 0.80 ounces in silver were found in sample No. 11-McN, may prove this also to be interesting.

The presently isolated chalcopryite occurrence in the granite, 700 feet or so north of the above mentioned showings, may be found to have a relationship with the north canyon rim mineralization.

The areas accessibility to tidewater in Kamishak Bay, 12 to 15 miles southeast, would permit exploitation of large low grade mineral deposits at reasonably low costs.

RECOMMENDATIONS

The following program is recommended:-

1. Beginning at canyon rim, trenches should be dug at right angles to the assumed northerly strike of the copper bearing zone. They should be of sufficient length to completely cross-cut the zone to its mineralized limits.

The trenches should be spaced at 50 to 100 feet intervals - initially at 50 foot spacing to define its strike and then at 100 foot intervals to ultimate limits of the mineralization. Sampling should be done for each 4 or 5 foot mineralized section as it is uncovered, and wherever any mineralization shows.

2. Effort and preparations should be made to permit owners sampling the north rim showings to full limit of mineralized widths, above and below, as well as between the two points sampled last September.

3. Effort should be made to determine whether the chalcopryite occurrence in the granite, an estimated 700 feet north of canyon rim, has any continuity by trenching, and if so, determine its limits and systematically sample as uncovered.

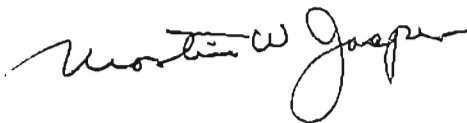
4. It is recommended that the oxidized granite areas exposed on the south wall be more closely examined for disseminated chalcopryite and pyrite mineralization, and if found to be so mineralized, samples should be taken, widths determined, and

effort made to determine their possible extent.

Both canyon walls, throughout the length of the canyon, should be carefully checked for signs of mineralization above and below the old adit.

The presence of 0.10 ounces in gold in the pyritized, oxidized area of No. 11-McN sample may also occur elsewhere, and the presence of low grade copper values with tonnage potentials of real magnitude would make them of interest.

5. The magnetite occurrences in the granite should be neglected for the present. Being of low grade and questionable areal extent, they are not, at present, considered of economic interest.

A handwritten signature in cursive script, reading "Martin W. Jasper". The signature is fluid and written in dark ink.

Martin W. Jasper
Territorial Mining Engineer

Anchorage, Alaska
May 11, 1956

ITINERARY REPORT
PAINT RIVER AREA
Sept. 15-18, 1955

known as) Big Lake, situated at head of Lake Fork which is a north fork of the Paint River, 7 to 8 miles northeast of Pilot Knob Lake. With Mr. Pfaff made the first trip, arriving at the camp on lake shore at 9:30 AM. Left there few minutes after arrival, with pilot returning to pick up Mr. Daily, returning within a half hour and remaining for the day on account of the weather.

The day was spent examining the copper occurrence on the Folly mineral claim which was staked the past season by Mr. Pfaff.

The copper occurrence is located on the very steep (and in places precipitous) north side of Canyon Creek, $1\frac{1}{2}$ to 2 miles northeast of the camp site - located at southeast corner of Big Lake. The copper showing has points of real interest with 25 to 30 feet or more width with encouraging values contained in chalcopyrite and malachite in a strongly sheared zone of an irregular basic intrusive into a diorite (or granodiorite ?) but to date has ~~to date has~~ not been traced beyond the limits of the north canyon rim.

To the north and northwest some scattered chalcopyrite mineralization was noted at several points in the diorite. In this area it was noted that this intrusive rock type had an abundance of magnetite, with an estimated range of 5 to 50% of that mineral present.

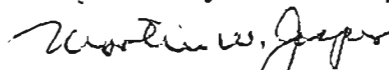
The canyon copper occurrence was prospected many years ago; an adit 15 feet in length was driven into the showing about halfway down the canyon slope. Date of that work is not known but was probably 35 to 40 years ago.

It was recommended that trenching be done along projected strike to the north of the canyon to trace mineralization to its limits in that direction.

The McNeil property on Paint River and the Folly on Canyon Creek are held by A. E. Sargent, Ernie Pfaff, Leon Alsworth, and Terry Gill. The latter bought Wm. Hammersley's interest last spring.

Returned to Big Lake at 4 PM. At Pilot Alsworth request to make a reconnaissance flight to and over the Bonanza Creek drainage area - an easterly tributary of the Mulchatna River - at his expense the next day, left Big Lake at 4:30 PM with Mr. Daily and arrived at Port Alsworth on Lake Clarke at 5:25 PM, where we spent the night.

Respectfully submitted,



Martin W. Jasper

Territorial Mining Engineer

November 3, 1955
Anchorage

November 2, 1955

PE
P-4
PE-103

ITINERARY REPORT

TO: Phil R. Holdsworth, Commissioner of Mines

FROM: Martin W. Jasper, Territorial Mining Engineer

SUBJECT: Examination of Copper occurrences on the old McNeil copper prospect, Paint River area, Iliamna Quadrangle, and another Copper occurrence ten miles to north. Requested by E. E. Sargent and Ernie Pfaff, and associates.

September 15, 1955: Left Anchorage via PNA at 7:20 AM for Iliamna. Arrived Iliamna (non-stop) at 8:35 AM., accompanied by A. F. Daily, field man on research assignment for Miami Copper Company.

At 10:10 AM left Iliamna Trading Post with bush pilot Leon (Babo) Alsworth '33 JRSR Model Stinson "float" plane, landing on Pilot Knob Lake, 3 miles from property, at 10:45 AM. We were met there within half hour by Ernie Pfaff, left the lake at 11:45 AM and reached the "barabara" camp on the McNeil property at 1:10 PM.

Afternoon and evening were spent on inspection of the No. 3 Adit and number of old open-cuts cleaned out the past season.

September 16: From 8 AM to 6 PM made reconnaissance trip up Crevice Creek to inspect copper showings which had been covered by snow drifts at time of 1953 examination. This traverse was continued to head of north fork of Crevice Creek, thence down the steep mountain slope to the northeast, opposite the mouth the Paint Rivers middle fork, to examine numerous magnetite showings exposed by small open-cuts the past season.

September 17: From 8 AM to 7 PM examined and sampled the old No. 3 Adit and the several open-cuts along this mineralized zone to the southwest and northeast, assisted by Mr. Daily.

Mr. Pfaff made trip to head of Crevice Creeks west fork to obtain "grab" samples of another copper occurrence. That showing was not examined as no stripping or trenching had been done upon it and the occurrence (or occurrences) were limited to a few outcrops along a talus slope.

September 18: "Broke" camp at 8:15 AM and reached Pilot Knob Lake at 9:05 AM with Mr. Pfaff and Mr. Daily, with Pilot Alsworth arriving from Port Alsworth on Lake Clarke at same time.

The party was shuttled in two trips from here to (locally