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TERRITORY OF ALASKA

DEPARTMENT OF MINES

PROPERTY EXAMINATION REPORT

K-103-8

GRUBSTAKERS INCORPORATED, COPPER PROSPECT

ILIAMNA QUADRANGLE, LOWER COOK INLET REGION

ILIAMNA PRECINCT, ALASKA

By

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TERRITORIAL MINING ENGINEER

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REPORT ON

GRUBSTAKERS INCORPORATED, COPPER PROSPECT
ILIAMNA QUADRANGLE, LOWER COOK INLET REGION
ILIAMNA PRECINCT, ALASKA

SUMMARY

The copper showings on the claims of the company, located about 1¼ mile west of Iliamna Bay, are not considered to be of any economic importance.

The copper and magnetite mineralization is of the contact metamorphic tpye, and is entirely confined to very small isolated remnants of limestone, as shown of attached Map 1.

The original (primary) chalcopyrite has to a large extent been altered to malachite and lesser amounts of azurite. The limestone (where noted) remaining in the area is found as small "embayments" or "roof pendents" in protected depressions on the steep mountain slopes of the granitic rock of the district.

Except for presence of disseminated pyrite in the silicified contact surface of the granite, mineralization ceases at the contact.

With no evidence of shearing action or strong fissured zones being present in the immediate vicinity, channels for circulation and upward migration of mineralized solutions from deep seated sources in the granite batholith, which are essential for formation of orebodies of economic importance, are lacking in the igneous mass.

INTRODUCTION

At request of J. Leo Conners and G. O. Kempton, officers of Grubstakers, Incorporated, Anchorage, an examination was made of their recently staked lode claims in the Iliamna Bay area.

The period from July 14th to 17th, 1955, was spent on the property. During that time a Brunton and chain traverse was run to tie-in the several showings, and a preliminary map developed from the survey and was left with Wm. Hammersley for his guidance.

Mr. Hammersley and David Field were employed by the company during June, July, and August, 1955, and were engaged in prospecting the property by trenching and open-cut work.

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LOCATION AND ACCESSIBILITY

The property lies at approximate geographical coordinates Long 153° 40' West and Lat 59° 45' North, lower Cook Inlet, Iliamna Quadrangle.* It is located about 1¼ mile west of tidewater near head of Iliamna Bay, which is on west side of Cook Inlet opposite Homer.

Considerable tonnages of supplies and equipment for defense construction projects, as well as for civilian use and consumption, are shipped to Iliamna Bay by barge and scow from Homer and other ports and "beached" at high-tide for unloading and truck haul over a good but narrow and winding 12 mile road to Pile Bay - the latter situated at northeast end of Iliamna Lake. Ocean going vesselshave to lie several miles off-shore to the southwest and lighter freight ashore. From Pile Bay freight is taken down lake to several points, as well as down the Kvichak River to Bristol Bay during the summer months.

Grubstakers Incorporated temporary camp was located along roadside about 1½ mile from Iliamna Bay on the north side of the short narrow "U" shaped valley, and about ½ mile (airline) N35½E from Station 13.*

Except by use of charter "float" plane or small boat charter from Homer or Anchorage, normal access is via Pacific Northern Airlines from Anchorage to Iliamna, thence by "float" plane to Pile Bay, and from latter ~~latter~~ point by truck for last 10½ miles to Hammersley's campsite.

TOPOGRAPHY

The topography of the area is typical of those deeply scoured by recent glaciation. The walls of the "U" shaped valley are steep and precipitous, with their ridge crests generally well rounded.* From sea-level the mountain slopes rise to a maximum 3000 foot elevation in less than a mile.

TIMBER AND VEGETATION

Above the 1500 to 1800 elevation the slopes are, as a whole, devoid of vegetation with considerable of the bedrock "smoothed" by glaciation. Below this elevation the slopes are covered with moss, and with dense alder and willow growth at the lower levels.*

Nearest timber - limited to spruce and some cottonwood - to be found is in the Iliamna River valley 8 miles to the west and around the shores of Iliamna Lake.

* Refer to attached Map 1 and pictures of the area.

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With the area being one of heavy rainfall and deep snow, the frequency of snowslides on the steep slopes has retarded (and to large extent prevents) natural reforestation and other plant growth in this recently glaciated area.

WATER SUPPLY

Length of the master stream of this area is about 4 miles, and its watershed is limited to a 5 or 6 square mile area. Water supply would be a problem during late fall and winter months for any major mining development.*

HISTORY AND OWNERSHIP

The four claims located by the company in June and July, 1955, cover part of the nine claims located by Charles M. Keys in 1905. The old Keyes property was known as the Copper King Group.**

Only two references have been found on the Keyes property. One of these is U. S. G. S. Bulletin 485, page 121, 1912, by G. C. Martin and F. J. Katz, in which the following brief account is given:-

"Copper King Group. These claims are about 1 1/3 miles west of the head of Iliamna Bay and one-third mile south of the main trail to Iliamna village, at an elevation of from 1000 to 1500 feet above tide. They lie on the steep mountain slope. Nine claims were located by the late Charles M. Keyes.

"Little was been done to develop the property except the digging of shallow pits and cuts in the regular performance of assessment work."

The mineral occurrences shown on Map 1, attached, are no doubt some of the showings found by Mr. Keyes, although evidence of his past work was not plainly visible.

GEOLOGY

Messers Martin and Katz, USGS Bulletin 485, page 121, report:-

"The prospects lie near the contact of hornblende granite and greenstone, Within the area of the former are small areas of crystalline limestone, with a maximum observed thickness of 20 feet, and irregular non-persistent masses of garnet and magnetite rock. The rock is cut by veins of quartz and epidote. The prospective ore is magnetite impregnated with chalcopyrite. According to report the ore is rich, but is irregularly distributed in bodies of small size."

* Refer to Key Map of area (Map 1) and to attached pictures.
** Refer to page 121, USGS Bul. 485.

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From the last statemant it would appear that Messrs Martin and Katz did not examine the copper occurrences.

The second reference is to be found in U. S. G. S. Circular 207, page two, which is a publication covering radioactive survey made of the area by Robt. E. Moxham and Arthur E. Nelson in 1949. Theirs is a reprint of Martin and Katz work taken from USGS Bulletin 485, page 121, with the added statement that "no radiation anomilies were detected at or near vicinity of the Copper King claims."

The area examined and mapped in July 1955 is composed of granite with the several small limestone remnants. The granite shows a definite gneissic structure at several points, a condition that does not persist over the area as a whole. A fairly large section showing intense epidotization was mapped just south of traverse Station 23, although its total lateral extent was not determined. No zones of strong garnetization were noted but are probably present in some of the conatct zones.

The greenstone mentioned by Martin and Katz were not observed.

Mineralization

The mineral occurrences are of the contact metamorphic type. They are erratic and lack persistence in any direction.

The copper mineralization is entirely confined to irregular limestone remnants, which latter have been highly altered - largely through silicification - for few feet from their contact with the granite. The maximum thickness of the remnants examined was 15 feet at Station 12, which point is located at upper limits of the remnant and is also the point of heaviest mineralization. This remmant's width does not exceed an estimated 60 to 70 feet at its upper end, and its width and thickness diminishes to the vanishing point in 200 feet as it drops down the steep slope in a small ravine.

The original metallic mineral deposition was limited to magnetite, chalcopyrite, pyrite, and little pyrrhotite in the limestone, occurring as small irregular masses, "blebs", and disseminations, in close proximity to the actual contact areas. There is no evidence to indicate that heavily laden mineralized solutions followed the intrusion of the granite into the older sedimentary series, as no strong sheared or fissured zones were noted in vicinity of the presently remaining limestone remnants, which latter are the only "host" rocks in which appreciable mineralization has been found on the property. Minor disseminated pyritization was noted in silicified granite at the contact surfaces. The silicified granite sections do not appear to be of appreciable thickness.

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No chalcopyrite was observed impregnated in the magnetite. The chalcopyrite has largely been altered to malachite and minor amounts of azurite, which have been in "bands" and very small irregular masses roughly parallel to the mountain slope in silicified sections of the limestone remnants.

Sampling

Because of the limited mineralization at widely separated points only 5 samples were taken.* Assays results of these, their location and description are as follows:-

Sample No.	Width ins	Au oz	Ag oz	Cu %	Description
1-Gr	30	nil	nil	tr	Open-cut near Sta. 23, No. 4 claim. Irreg small "blebs" chalcopyrite & small lenses of magnetite; little pyrite & marcasite, traces of malachite in oxidized & altered Ls.
2-Gr	20	tr	0.24	0.89	S. side of o.c. near Sta.17. Little malachite in irreg discontinuous veinlets in Ls. Roughly parallels surface. No malachite on N side of cut. No sulfides observed.
3-Gr	7	tr	0.96	0.49	From 2nd o.c. near Sta. 17. Little malachite along seams, parallel to surface. Few small "blebs" of chalcopyrite.
4-Gr	52	nil	0.28	0.69	O.C. at Sta. 12 at top of highly oxidized, somewhat silicified Ls remnant. Estimate 45-50% sulfides, composed of pyrite, marcasite, pyrrhotite, and little chalcopyrite. Some magnetite.
5-Gr	46	nil	0.56	nil	Continuation of sample #4-Gr at right angles to contact. Similar material with metallic minerals limited to magnetite(est. 50% magnetite). No copper minerals noted.

(Note:- All 5 samples taken at right angles to trend of mineralization - that is,at right angles to mountain slope and to the contact, to which the erratic mineralization is roughly parallel,)

Location of samples are shown on Map 1.

The samples submitted the past summer by Messrs Connors, Kempton, and Hammersley from this property, most of which showed good copper values, are believed to have been taken along the "trend" of mineralization rather than at right angles to the slope and to the contact.

* Refer to Map 1 attached.

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CONCLUSIONS

Examination of these widely separated copper occurrences disclose them to be entirely limited to small isolated limestone remnants, and offer no reasonable (or remote) chance of finding lateral or vertical extensions of the mineralization.

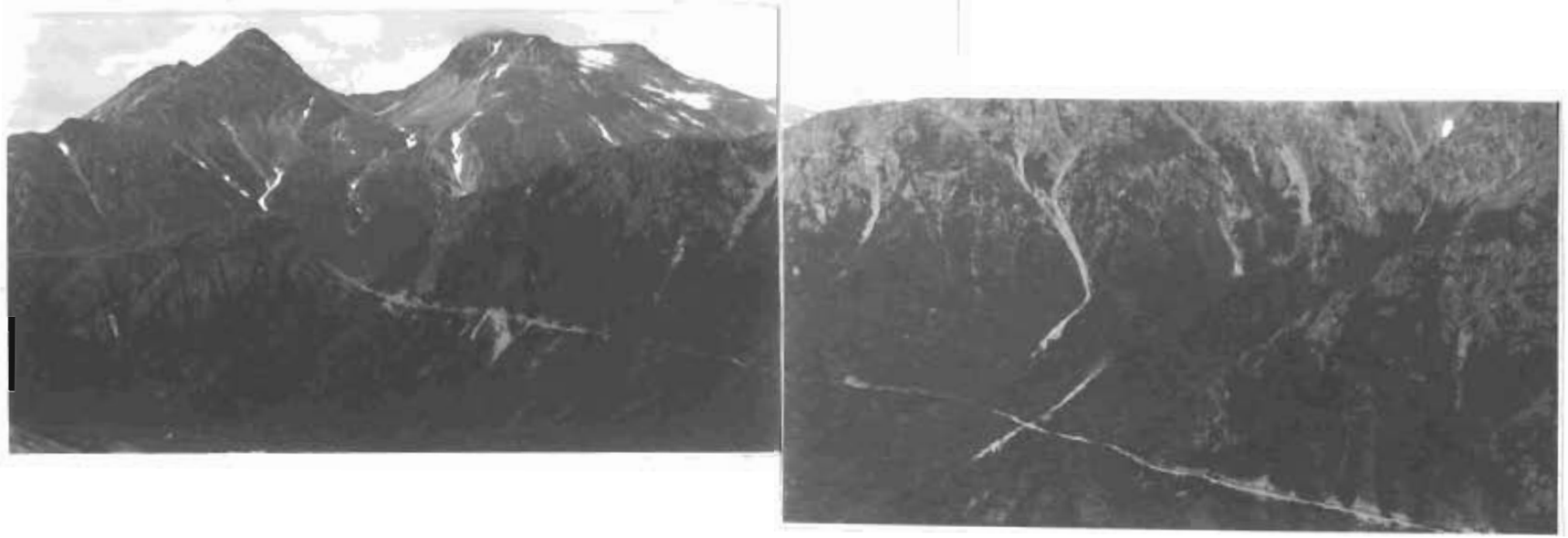
The showings in themselves do not contain a sufficient tonnage or values to encourage anyone to mine and ship direct to a smelter.

RECOMMENDATIONS

It is the considered opinion of the undersigned that the property does not warrant any further work done upon it, and it is recommended that the project should be dropped.

Martin W. Jasper
Mining Engineer
Territorial Department of Mines

Anchorage, Alaska
December 8, 1955



PANORAMIC VIEW SERIES
FROM PASS TO ILIAMNA BAY
JULY 15, 1955