

800419

REPORT AND RECOMMENDED PROGRAM
ON LOON CLAIM GROUP
(ATLIN MINING DIVISION)

FOR

HOBO CREEK COPPER MINES LTD.
308-540 BURRARD STREET
VANCOUVER, B. C.

BY

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JUNE 14, 1971

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INTRODUCTION

On June 8 - 9, 1971, the writer made a field examination of the recently staked Loon claim group for Hobo Creek Copper Mines Ltd. The examination was limited to rock identification and a general geological evaluation.

The presence of displaced limestone beds and/or a series of parallel intrusions give this claim group a very favorable geological setting for future exploration programs as outlined herein.

LOCATION

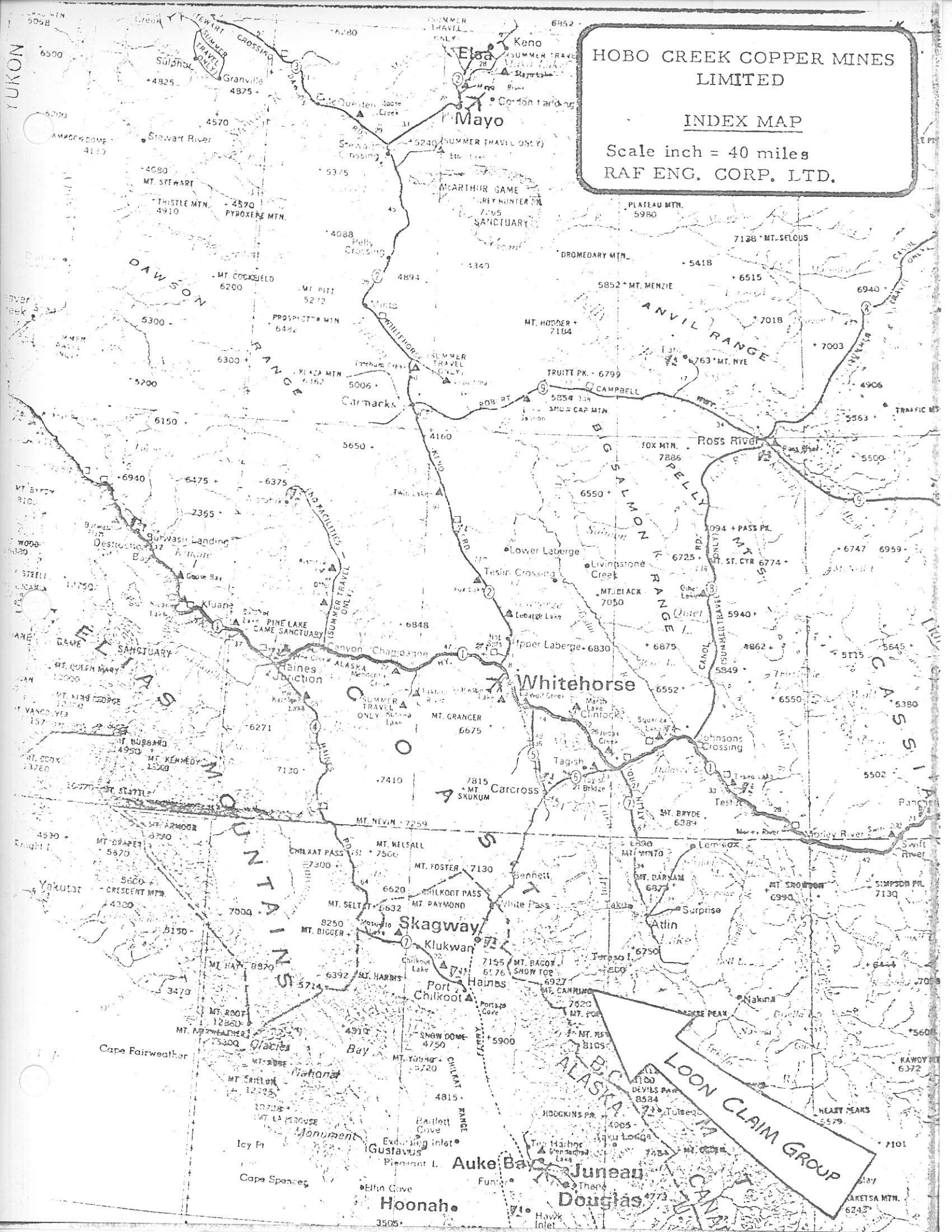
The Loon claim group is located along Hobo Creek approximately two miles south of it's entrance into Willison Bay on Atlin Lake. Geographically this is approximately $59^{\circ} 13 \frac{1}{2}'$ North latitude and $134^{\circ} 07'$ West longitude.

Access to the property is most easily made from Whitehorse, Yukon Territory. From Whitehorse one travels southeast along the Alcan highway to Jake's Corner a distance of 52 miles and then south on Yukon No. 7 to Atlin, B. C. a distance of 61 miles. From Atlin access must be made by either boat, airplane or helicopter, the

HOBO CREEK COPPER MINES LIMITED

INDEX MAP

Scale inch = 40 miles
RAF ENG. CORP. LTD.



YUKON

DAWSON RANGE

ELIAS RANGE

MOUNTAIN

ALASKA

LOON CLAIM GROUP

Granville 4875

MT. STEWART 4080

MT. QUEEN MARY 12000

MT. ARMOUR 6790

MT. BARRY 6370

MT. SHELTON 12335

Mayo

MT. COCKFIELD 6200

MT. GRANGER 6675

MT. NEVIN 7259

MT. HARRIS 6392

MT. YOUNG 5720

Whitehorse

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

Carcross

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

Skagway

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

Atlin

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

Juneau

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

Douglas

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

Hoonah

MT. GRANGER 6675

MT. SKUKUM 7815

MT. WELLSALL 7500

MT. PAYMOND 6620

MT. BARRY 6370

property being approximately 40 miles to the southwest. (See index map).

TOPOGRAPHY

Hobo Creek lies in a typical "U" shaped glacial valley and is the result of melting from the Llewellyn glacier in this region. The valley is bounded on the east, south and west by Mt. Mussen, the Llewellyn glacier, and Mt. Caplice respectively. The mean elevation at the campsite along Hobo Creek is approximately 2290' A. S. L., however, both Mt. Mussen and Mt. Caplice rise in excess of 6500' A. S. L.

The valley is flat with an average width of one half mile and contains several swampy meadows, caused by beaver dams, at several points along the creek. Both sides of the valley are steep rock bluffs with the only forest cover being small stands of spruce.

CLAIMS

The Loon claim group consists of 36 mineral claims (Loon 5-22, 29-46) which were located on May 28, 1971 and recorded on June 8, 1971. Because of their recent recording date, record numbers

were not available at the date of this report. The entire claim group surrounds the Laverdiere property which is currently being diamond drilled.

BRIEF HISTORY

As previously mentioned this claim group has only recently been staked, however, it does surround the Laverdiere property which was originally staked in 1899. Several adits were driven and in 1906-09(?) a few highgrade copper shipments were made. Assays from a cross-cut tunnel on the French claim ranged from 1.65-6 per cent copper over a length of 130 ft.¹

Until the present, only intermittent amounts of exploration work have been carried out. Results of the current diamond drilling program were not available as of this report date, however several encouraging ore intersections were examined by the writer.

GEOLOGY

It is rather difficult in ascertaining the exact geology of the Loon claim group since much of the geology of the area has never been mapped. Based on the geology of the Laverdiere property and

¹ Robertson, W. F. - Report of the Minister of Mines of British Columbia, 1904, (pp. G79, G80).

the fact that the Loon claim group is in a similar geological setting the following can be stated.

The western edge of the Hobo Creek Valley consists chiefly of metamorphic rocks, primarily quartzites, gneisses, mica and greenstone schists, and amphibolites. Beds and lenses of limestone and marble are also contained within this rock assemblage. Further to the west these rocks have been intruded by granitic intrusions with the most predominant rock type being granodiorite. In places, particularly near the contact with limestone, the granodiorite appears to have a porphyritic texture. The contacts between both rock assemblages strikes in a southwesterly direction and dips rather steeply to the northwest.

There are several obvious structural controls, the most notable being in the vicinity of the current drilling program on the Laverdiere property where limestone has been displaced laterally. On both sides of the valley a series of faults or shear zones are noticeable, all striking and dipping parallel to each other. These could very likely be displacements along limestone beds and would be good preliminary targets for mineralization occurrences.

CONCLUSIONS AND RECOMMENDATIONS

The presence of parallel shear zones or fault displacements on the Loon claim group is encouraging, particularly after examining the Laverdiere property. If these are displaced limestone beds and/or a series of parallel intrusions there exists good possibility of encountering mineralization of similar nature.

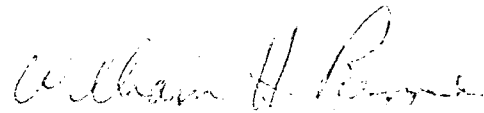
These occurrences could quite easily be established by means of geological mapping and a ground electromagnetic survey. If significant "cross-overs" resulted from the survey, along with coincidental surficial alteration or mineralization, justification for trenching and shallow diamond drilling expenditures could be made.

RECOMMENDATIONS

1. Geological Mapping	5,000
2. Ground Electromagnetic Survey	9,000
3. Trenching to verify significant "cross-overs" as determined from the electromagnetic survey	10,000
4. Shallow diamond drilling to delineate mineralization of economic significance	26,000
	<u>\$50,000</u>

If at the conclusion of the above recommended program it appeared that a commercial quantity of ore could be developed a more detailed diamond drilling program or underground development program would be required.

Respectfully Submitted,

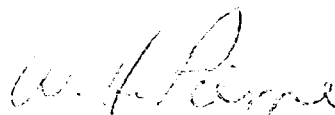
A handwritten signature in cursive script, appearing to read "William H. Pierre".

William H. Pierre, P. Eng.
Mining Engineer

CERTIFICATE

I, WILLIAM H. PIERRE, of the city of Richmond,
British Columbia, do hereby certify that:

1. I am a graduate of the Montana School of Mines,
(B. Sc. in Mining Engineering, 1968).
2. I am a Registered Professional Engineer of the
Province of British Columbia.
3. I am an EIT, State of Montana Board of Registration
for Professional Engineers and Land Surveyors.
4. I am a member of the Canadian Institute of Mining
and Metallurgy, and the American Institute of
Mining, Metallurgical, and Petroleum Engineers.
5. I have practiced my profession since 1968 with
Kennecott Copper Corporation, Mobil Oil Corporation,
and RAF Engineering Corporation Ltd.
6. I personally examined the Loon Claim Group as
described in this report on June 8-9, 1971.
7. I have not received, nor do I expect to receive, any
interest directly or indirectly in the properties or
securities of Hobo Creek Mines Ltd.



W. H. PIERRE, P. ENG.

DATED: June 14, 1971