

JANUARY

JAN

801936

Monthly report.

From Jan. 14th - Jan. 22nd time has been spent, trying to solve the froth problem, designing and making the thin section description forms, some administrative affairs, trying to get used to the microscope and a first look at the available thin sections.

From Jan. 23rd - Jan 26th. a start has been made describing the available thin sections on the forms.

Some difficulties are caused by the strong alteration of the rocks and the quite often rather thick sections.

From Jan 27th - Jan. 30rd Raymond Houle has been assisted, staking claims.

Februari 1st 1969.

C.G. van Houten

C.G. van Houten.

FEB

March 2nd, 1970

To : Mr. J. Paxton, Chief Mine Geologist
From : C. G. Van Houten
Subject : February Monthly Report

Dear Sir:

Microscope Work

The majority of the thin sections from the Ironsides pit mapping have been examined. About ten are left, but they will be dealt with as soon as possible.

A number of rocks that has been classified as to belong to a certain unit proved to be different, for instance, footwall argillite(2c) proves to be an epidote skarn that has no apparent relationship(textural and mineralogical) to the footwall argillite. The aeolian sandstone ore (3d) and aeolian(3c) basal skarn show subhedral to euhedral pseudomorphs, which are probably remains of feldspar and mafic minerals in perhaps a basic igneous rock. The diorite(16c) proves to be a subgreywacke (ref. to Huang's Petrology), which strongly resembles the sharpstone conglomerate.

In most of the igneous rocks, the plagioclase has been altered into albite which makes classifying them difficult. Moreover the rock classification system by Moorhouse proves to be unsatisfactory and the ordered for classification by Travis (quaterly of the Colorado School of Mines, vol.50, No. 1) has not yet arrived, so at least some of the names given to the rocks will be changed in the future.

Significance of Month's Work

The significance of the work being done is getting a better knowledge of the rocks in the mine area, work with the classification (system which wasn't satisfactory), describing and photographing the thin

cont'd

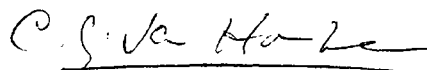
*

cont'd

sections. Discovering that a number of the rocks did not prove to be what they were considered to be.

It seems to be difficult(still) to find out which igneous rock is volcanic or sub-volcanic.

Sincerely yours



C. G. Van Houten

MAR

April 2, 1970

TO : Mr. James Paxton, chief mine geologist
FROM : Chris G. Van Houten
SUBJECT : Monthly Report, March

Dear Sir :

Most of the work on the thin sections from the mine has been done but the last word has not been said about them, as information from other, for instance, less altered or metamorphic samples could be applied to them.

The thin sections of the 1969 field work got a preliminary going over, together with a very short description. About 13 slides have been described in more detail on the forms. Short descriptions and determination of other thin sections or transcriptions of the forms have been given to Messrs. Hun and Kiwan Kim on their request.

A visit has been brought together with Mr. Hun Kim to an abandoned adit on Goat mountain.

Significance of Month's Work

At the moment two groups of rocks, both of diorite composition can be distinguished.

1st Diorite, andesite and tuff, consisting of plagioclase, amphibole and minor quartz. These rocks are strongly altered (metamorphosed?) into saussurite, chlorite, sericite, carbonate and perhaps some scapolite.

2nd Diorite and andesite consisting of plagioclase, biotite, pyroxene, probably pseudomorphs of pyroxene and minor quartz. These rocks are much less altered than 1st. There is little or no secondary epidote.

The predominant secondary mineral is chlorite.

After Mr. Coots changed his type of Canada balsam, the relief of minerals is often problematic, moreover helpfull cracks in the rocks ^{slides} seldom occur.

April 2, 1970

This has been proven by comparison with the older collections.

Yours sincerely

C. G. Van Houten

Chris G. Van Houten

APR

The Granby Mining Company Limited
PHOENIX COPPER DIVISION
Box 490, Grand Forks, B.C.

To Mr. Jim Paxton

May 1 1970.

From Chris G. Van Houten

Subject Monthly report.

Dear Sir

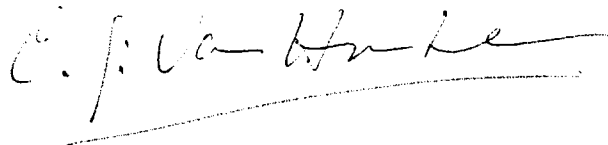
Work has been continued in assisting messrs Hun Kim and Kiwan Kim with their 1969-fieldwork reports, describing and grouping of thin sections, glueing and administration of photographs, and re-naming of the igneous rocks of the mine according to the Travis classification. Furthermore handspecimens from the wall collection have been studied and compared with specimens of which thin sections exist for future fieldwork.

The second half of the month has been spent in the field with messrs Hun Kim and Kiwan Kim.

Significance of months work.

Continuation of thin section record and preparation for fieldwork.

Yours truly



May

The Granby Mining Company Limited
PHOENIX COPPER DIVISION
Box 490, Grand Forks, B.C.

FROM: Chris Van Houten
TO: Mr. James Paxton, Chief Geologist
SUBJECT: Monthly Report

The last two weeks of May, mapping has been done north of Fisherman Creek within the coordinates I-4, I-5, I-6 along the railroad and on top of Thimble Mountain.

Andesitic, lightly metamorphic and often fragmentary volcanics are overlain by a white to grey bedded cherty limestone on top of which probably the sharpstone conglomerate is found.

The limestone seems to grade into this conglomerate which has a high content of limestone pebbles at its base. Upward in the sequence this conglomerate is predominantly made up of chert pebbles (from concretions in the limestone?). This sequence is overlain by "pulaskite" which forms also the top of Thimble Mountain. Small, probably DO₂ - type intrusions occur in places. They are surrounded by the metamorphic andesite. Under the "pulaskite" a small exposure of well bedded arkose has been found.

The andesites along the railroad are crossed by numerous sheared zones of which a number have a fault-like character. To the north of I-6 these structural features seem to become more abundant and more intense.

Yours truly,



Chris Van Houten

To Jim Paxton
From Chris Van Heuten.
Subject; monthly report.

June 28 1970

JUN

Dear Sir,

Fieldwork has been done in the eastern, north-eastern and northern part of the area, Thimble Mountain and the western part of the area mostly along roads. Mapping has started on a line grid in the densely wooded area around B.C. Mine.

Furthermore a basemap has been made.

In the western half of the area, most of the outcrops are of limestone and pulaskite/syenite which intrudes the limestone.

In the north-eastern part of the area, limestone, conglomerate and partly bedded chert are intruded by rocks, which seem to belong to the same group as the rocks in the western half of the area.

An aphanitic dark grey to almost black rocktype, which shows occasionally white pyrite might be aphanitic pulaskite/syenite and/or a more basic late intrusive. The dark color could be caused by biotite.

Yours truly

Chris Van Heuten

•• Date; August 3, 1970.

July

From; Chris van Houten
to; James Paxton
Subject; monthly report.

The whole area has been covered in a general sense, but there are still isolated areas, gaps and problems to be worked on. For this reason it is better to work as a one-geologist unit, because increased mobility is needed to go from one place to another.

The Shickshock Hill is covered by limestone and skarn which appears to be intruded by a hornblende diorite or quartz diorite, which has been chertified. There are showings of pyrrhotite and in diggings small bodies with pyrrhotite and magnetite. There are a few small intrusions of rocks belonging to the syenite group.

Yours truly

C. J. Van Houten

August 31, 1970.

AUG

From Chris van Houten
To Jim Paxton
Subject; Monthly report.

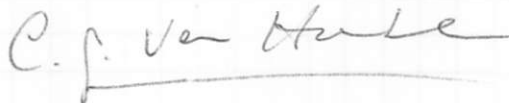
Dear Sir,

In August most of the major existing gaps have been mapped. Most of which being situated in inaccessible areas, like dense forests, steep grades and elusive linegrids. A small area near the Fisherman Creek road has been remapped.

In the area west of Wilgress Lake mapping has started in quite difficult terrain. The rocks here are essentially limestone, skarn, hornblende (quartz) diorite, syenite and a biotite containing diorite which might be older than the syenite but younger than the hornblende (quartz) diorite.

The west slope of the area near the old railroad track appears to be complicated with rock changes over short distances. A serpentine outcrop has been found.

Yours truly



C.G. van Houten.

October 2 1970.

From Chris Van Houten
To Jim Paxton
Subject, Monthly report.

SEP

Dear Sir.

The work in September consisted for a large part of mapping and studying the area between Loon Lake and Glenside Creek, including the Emma Mine and the adjacent trenches, visiting the Lancashire Lass and and the Cyclops claims. Furthermore studying and mapping of the eastern railroad area, which is quite complicated, due to the alteration and dioritisation of the sediments and volcanics.

In places there seems to be a continuous sedimentary sequence, grading from rather coarse sharpstone type conglomerates into finer conglomerates including sandstones siltstones and some argillite and finally eolean sanstone and limestone. The andesite flows might be "local" phenomena in this sequence.

Yours truly

C. F. Van Houten

November 2 1970.

Oct

From Chris Van Houten
To Jim Paxton
Subject, monthly report.

Dear Sir.

Apart from + 5 days at the office and a few days west of the Granby Valley, most of the mapping took place east of the Granby valley, especially west of the Monashee Gneiss. In this area the Kettle River arkose (with pyrite) was found. Limestone was found on top of the syenite east of Fisherman Creek, and a conglomerate of the red agglomerate appears to underlie the aforementioned arkose.

Between Volcanic creek and Toronto Creek exists a zone of strongly altered and sheared rocks (Sharpstone conglomerate, argillite and volcanics), bordering an altered hornblende (quartz) diorite, pyrite occurs here rather frequently, an incidental pinpoint chalcopyrite crystal might be present.

Yours Truly

C. Van Houten