

In general, the program is intended to (1) map the geology of the claim group, (2) soil sample specific areas indicated by geology and/or geophysics, (3) prepare picket lines and conduct additional geophysical work.

Mineralization of a porphyry copper type is possible in various rock types. In addition, there are possibilities of replacement mineralization possibly associated with magnetite and specular hematite.

The mineralized zones on the BAL claims to the southeast and on the HEATH claims to the north should be visited, if possible.

Reasonable cooperation from the companies involved is expected.

Linecutting is to be done by a contractor as early as possible in the season. Where necessary, the property geologist should assist in chaining or turning off picket lines along the 58NE base line to speed up this work.

The minimag instrument provided is reasonably accurate if used with care. Although much slower than a fluxgate, it is very much cheaper - its total cost being equal to one month's rental of a Sharpe MF-1. Check readings should be taken at a base station near camp and at intervals (line intersections) along the base line as surveying proceeds. Time should be recorded for all check readings and at appropriate intervals during survey of lines.

Soil samples are to be taken from the 'B' horizon where possible but the best available material should be taken in any case to provide a sample. Notes should be taken to indicate the type of soil.

Samples are to be placed in the paper soil sample bags provided with the grid number clearly marked on the bag with felt pen. The same number is to be marked on a piece of flagging hung at the sample site.

Sample bags are to be hung each night at camp so they may be partially dry by the time they are shipped out.

Rubeanic acid tests of samples can generally be kept up to date by doing them each evening. These are necessary only in the area east of the swamp and in the area southeast of line 160NW.

Rubeanic strips should be mounted on sheets of paper with scotch tape so that they may be examined later, as necessary.

Soil and silt samples should be packed securely for shipment on supply days. They should be clearly marked "N.B.C. Syndicate, Camp HI, Box 1 of 3" as appropriate to prevent their going astray. An instruction sheet must be enclosed stating what analyses are required. These samples are normally dried and sifted in Fort St. James before shipment to Vancouver for analysis.

Rock specimens should be taken of each significant rock type encountered on the property; these to be marked by a number adequate for future identification and the number and description should be clearly noted in the field notes. They should be shipped out, as convenient, to Fort St. James.

During all mapping and surveying, locations of claim lines, and particularly claim posts, are to be recorded.

TP surveying of several lines is proposed. This will be done by a contractor in conjunction with work on other claim groups.

All possible geochemical and geological information should be collected before arrival of this crew, possibly in early July.

Several companies hold claims in the vicinity. No information should be passed on to any of these from the local crew and efforts should be made to avoid leaving maps or records openly available at the camp. A wooden office box is provided and should be locked.

Ian Wraight is dispatcher for Northern Mountain Airlines and serves as N.B.C. expediter. Radio scheds and camp designations will be coordinated with him. Normally a radio sched every second evening should be sufficient. Radio gossip between camps is definitely frowned on.

The expediter is to be given your standard grub order for 10-day periods. If extra fresh fruit, etc., are available in Fort St. James, he will add those items at his discretion. Your order should show what items may be necessary only at longer intervals - i.e. soap, sauces.

A diary is provided and must show daily entries indicating where all personnel worked and what they were doing. Note should be made of all visitors, supply planes, weather, contractors' work, etc.

Much of this information is extremely valuable in compiling assessment work, for example.

It is possible some trenching will be done in conjunction with the Senate Mines program. No responsibility for this should be assumed until authorized specifically.

Camp garbage should be burned every day or two with proper precaution. Camp to be as neat as reasonably possible. Bears are less likely to be attracted if the camp is clean. Normally we have very little trouble. There are grizzlies in the area and reasonable caution is necessary. Don't pull their tails! The clip in your rifle should be loaded but a cartridge should not be left in the chamber. A few practice shots are desirable but remember there are others working in the area. Don't endanger them and don't let the number or spacing of your shots indicate an emergency - i.e. groups of three.

## LINECUTTING

The picket line grid started during winter 1970 is to be extended.

BEING 3-4

DONE

- (1) Lines 176 NW to 208 NW should be extended northeast to chainage 100 NE.
- (2) Lines 184 NW to 240 NW should be cut southwest from 58 NE base line to reach 30 NE base line.
- (3) 58 NE base line is to be extended to the northwest boundary of the claim group (approximately 4700 feet).
- (4) Four picket lines should be cut from the 58 NE B.L. southwest to the claim group boundary and northeast to the lake and the creek draining that lake.

DONE (5) LINES 136 NW, 144 NW AND ISE NW WERE CUT FROM SENE BL TO
THE SWAMP ON 152 AND 144 AND TO ABOUT 103 NE ON 136 NW
MAGNETOMETER SURVEY

All new picket lines and base lines should be surveyed with the Minimag instrument with 400 feet overlap on existing lines so that new readings may be correlated with the old. Readings are to be at 200' intervals on base lines and 100' intervals on cross lines.

Minimag readings should also be taken at each soil sample location on the tape and compass grid described below under "Soil Sampling".

## GEOLOGICAL MAPPING

All possible geological information should be recorded in all parts of the claim group. The greatest percentage of outcrop is in the burn area south of line 160 NW. Air photo enlargements are provided as the only practical means of mapping control. Scale of these photos is only approximate. Plot picket and base lines on photos.

This is a very difficult area to work in but it should be carefully done with a good prospector's eye for mineral.

Mapping in the area between line 160 NW and the burn area can probably best be done in conjunction with soil sampling and the magnetometer survey on tape and compass lines.

After extension of lines 176 NW to 208 NW to chainage 100 NE, that area should also be carefully mapped with extra traverses by tape and compass between the picket lines.

Outcrop in the creeks near the northwest end of the property should be plotted in relation to the picket lines with the enlarged air photos for assistance.

## SOIL SAMPLING

In the timbered area southeast of line 160 NW and northeast of 58 NE base lines, soil sampling should be carried out on tape and compass lines on a grid with lines 400 feet apart and samples at 100 foot intervals; this grid to extend northeast to the swamp area. Sample Lines 168 NW AND 160NW FROM 50 NE TO Swamp AT 200 INTERVALS

This is a priority portion of the HI program. Minimag readings should be taken at 100 foot intervals (each soil sample location) and time and care should be taken to locate and map any outcrops in this area.

Soil samples are to be tested by the rubeanic method in the field and if significant positive tests are obtained, the lineDETAILED TAMPLING MAY BE WARRANTED cutting crew should cut lines at 400 foot intervals for geophysical follow-up.

- (b) On the four picket lines at the northwest extremity of the property, soil samples should be taken at 200 foot intervals. Low priority. Done Samples were taken where indicated as useful by Topography & magnetometer survey
- The area east of the swamp in the vicinity of lines

  176 NW to 208 NW should be soil-sampled at 100 foot intervals on picket

  lines and along tape and compass lines between these lines to provide

  GRID PRACING 800' × 100'
  a grid spacing of 400' x 100'. The vicinity of conductor "C" should

  be most particularly examined.
- Three springs are shown on the plan of the EM survey.

  These were not noted during summer 1969 being assumed to be surface runoff. A series of soil (black muck) samples are to be taken on a 100' x 100' grid in the vicinity of these springs. These grids should each cover approximately 500' x 500'. Samples should be taken from black muck below the main present root system or from such better soil as may be found.

J. C. Douglas

## N.B.C. SYNDICATE - List of Free Miner's Certificates

88321

Issued May 12th, 1970

John Clarke

Valid from midnight on May 31st, 1970, until midnight May 31st, 1971.

 W.R. Bacon
 88296

 J.C. Stephen
 88297

 S.B. McBeath
 88298

 C.F. Harivel
 88299

 John Douglas
 88300

 David Douglas
 88320