

GEOLOGICAL AND GEOCHEMICAL REPORT

HG 3 CLAIM

SIMILKAMEEN MINING DIVISION

By

J. Nebocat

October 29, 1980

LOCATION: 40 kilometers north of Princeton, B. C.
Latitude 49° 44', Longitude 120° 29'
N. T. S. 92 H/9 W

CLAIMS OWNED BY: Newmont Exploration of Canada Limited

WORK DONE BY: Newmont Exploration of Canada Limited

WORK DONE BETWEEN: May 19, 1980 and June 7, 1980

**MINERAL RESOURCES BRANCH
ASSESSMENT REPORT**

8544
No. _____

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LOCATION, ACCESS, TOPOGRAPHY

The HG 3 claim is located in the Thompson Plateau of south-central British Columbia. The claim is centred approximately 4 km south of Missezula Lake and occurs on N.T.S. sheet 92H/9W (49° 44' latitude, 120° 29' longitude).

Access is by the Missezula Lake road which branches off Highway 5, 8 kilometers north of Princeton, B. C. The distance to Missezula Lake from Highway 5 is 30 kilometers over a good but winding gravel road. The HG 3 claim can be reached by a 3 kilometer 4-wheel-drive road that branches to the east from the main road about 1.5 kilometers south of Missezula Lake. The road ends just inside the HG 1 claim. Access to the HG 3 claim is by foot from here over a distance of 1.5 km, or from a logging road 4 km east of the claim.

The terrain on the HG 3 claim is generally gently rolling and is transected by several north-south trending gullies. The ground steepens in the NW corner of the claims where it breaks off into the Summers Creek valley. Elevations range from 1200m ASL in the NW corner of the property to 1600m ASL in the SE corner.

Vegetation consists primarily of coniferous forest cover comprised of fir and jackpine, with spruce near sources of water. Minor deciduous types occur throughout but underbrush is minimal.

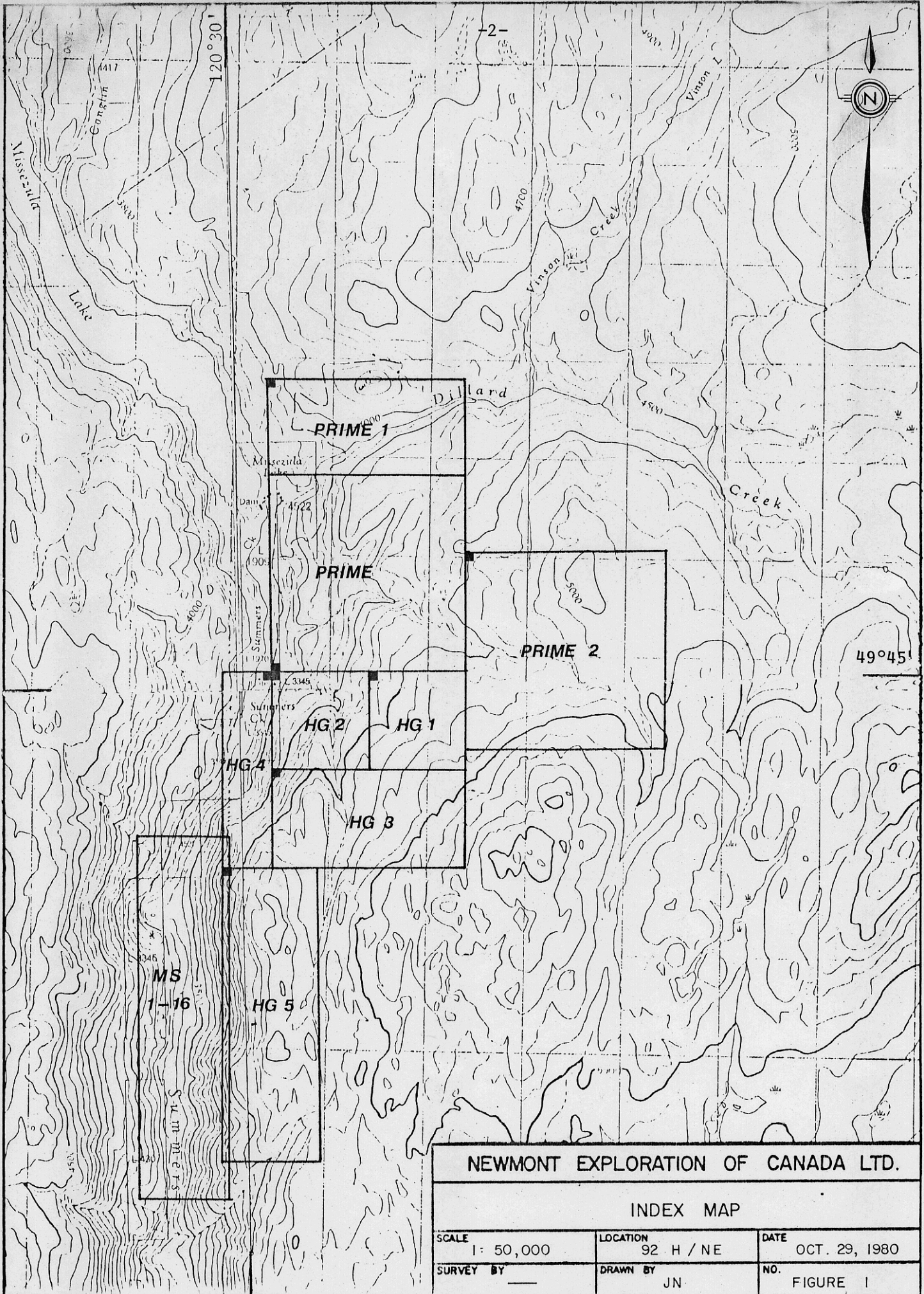
SUMMARY OF WORK

Between May 19, 1980 and June 7, 1980 the author, a senior assistant and two junior assistants geologically mapped and soil sampled the HG 3 claim. One hundred and five soil and 2 rock geochem samples were taken within the claims.

The geology was mapped on 1": 1/4 mile (20 chain) airphotos and transferred to base maps of the same scale. The geology and geochem maps were enlarged to 1:10,000 scale for this report.

PREPARATORY WORK

East-west grid lines were established with Silva compasses and



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INDEX MAP

SCALE 1: 50,000	LOCATION 92 H / NE	DATE OCT. 29, 1980
SURVEY BY —	DRAWN BY JN	NO. FIGURE 1

hip-chains. The lines were started every 200m along the eastern margin of the claim line and were run westerly. Soil samples were taken every 100m. Follow-up sampling was done on 25m spacing. Flagging tape was used to mark the soil lines and sample locations.

GEOLOGY

The eastern half of the claim is underlain by dark green, massive but locally auto-brecciated hornblende-pyroxene porphyry flows. The rocks are moderately to strongly magnetic and locally exhibit epidote alteration. Traces of pyrite mineralization were seen in these rocks.

The west half of the claim is underlain by greyish-green breccias, agglomerates, tuffs, trachyte porphyry flows, lahars, maroon breccias and one occurrence of a dark green augite-analcite porphyry. Many of the clasts in the agglomerate and lahar consists of a maroon trachy-basalt porphyry and fleshy pink syenite porphyry. These potash feldspar rich rocks appear to belong to the suite of rocks defined as "Eastern Belt" by Preto (Preliminary Map No. 15, 1974, British Columbia Department of Mines & Petroleum Resources). Traces of disseminated chalcopyrite mineralization were noted in float.

A north-south linear modified by a northerly draining creek separates the above major rock types. Three major linear trends exist on the claim, a north-south set, a northwest-southeast set and a northeast-southwest set. Only the north-south sets appear to off-set major lithological units and are probably reflections of movement along the Summers Creek fault system occurring west from here.

GEOCHEMISTRY

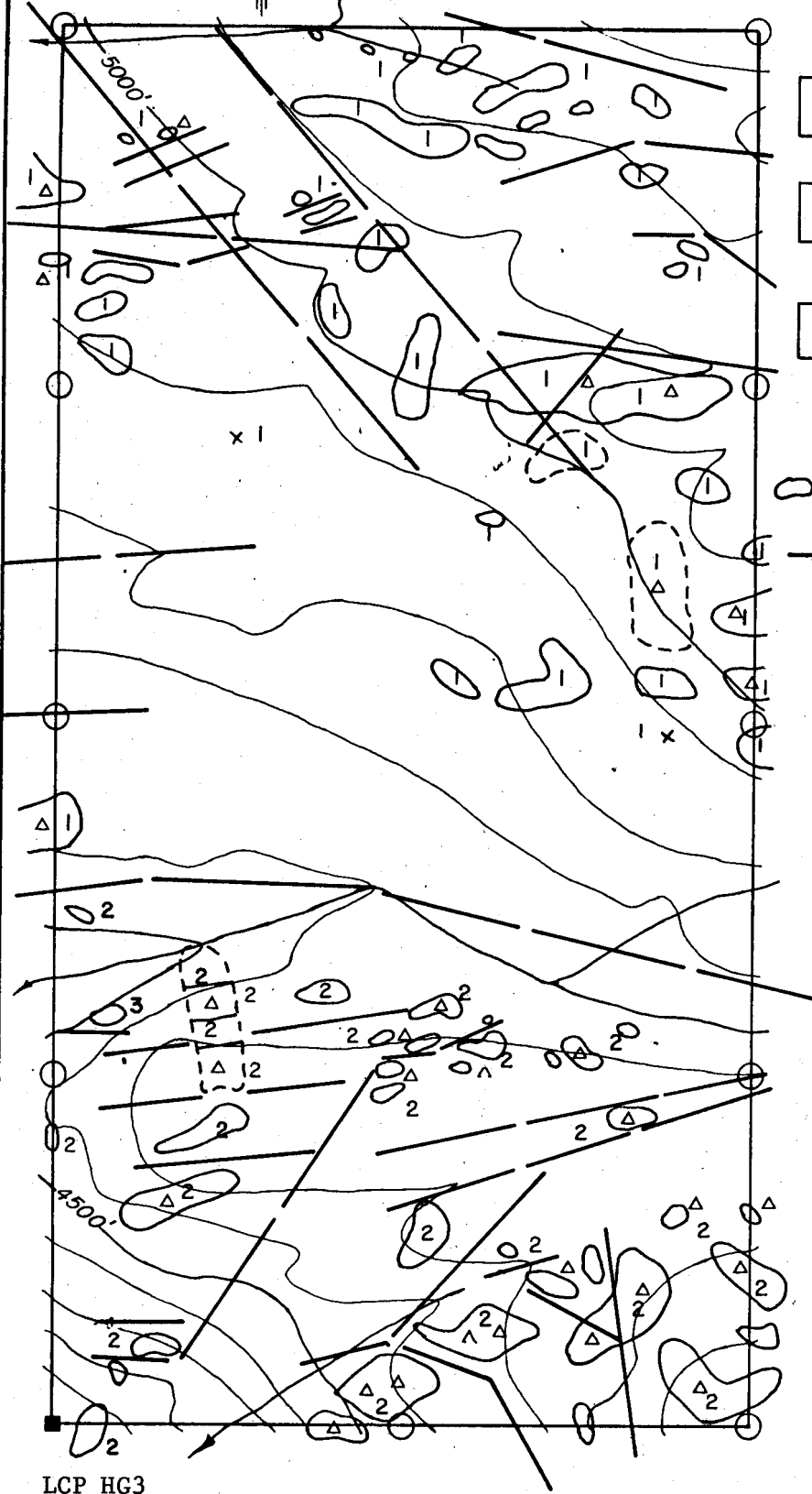
Field Procedure

Soil samples were taken at 100m intervals with follow-up samples at 25m intervals. The B horizon was sampled with a mattock and trowel at an average depth of 15 cm. The samples were collected in kraft paper envelopes.

LEGEND

- 3 DARK GREEN AUGITE / ANALCITE PORPHYRY
- 2 GREYISH-GREEN AGGLOMERATE, TUFF & LAHAR. PINK TRACHYTE PORPHYRY, MAROON BRECCIAS
- 1 DARK GREEN, LOCALLY EPIDOTIZED HORNBLLENDE / PYROXENE PORPHYRY FLOWS, MINOR BRECCIA
- AREA OF OUTCROP; DEFINED, APPROXIMATE
- LINEATION
- △ BRECCIA

CONTOUR INTERVAL : 100 ft.



LCP HG3



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HG 3-GEOLOGICAL PLAN

SCALE 1:10,000	LOCATION 92 H/9W	DATE OCT. 29, 1980
SURVEY BY JN	DRAWN BY JN	NO. FIGURE 2

The A horizon was very shallow in most instances (less than 5 cm) with exceptions being in creeks and gullies where organic material had accumulated. The B horizon was for the most part a light greyish-brown soil derived from glacial till containing little or no organic material.

Rock geochem samples were taken in the area of anomalous soil samples.

Laboratory Procedure

The samples were prepared and analyzed by Min-En Labs Ltd. in North Vancouver, B. C. All soil samples were analyzed for Cu only.

After drying and sieving to -80 mesh, a 1/2 gram sample was placed in a tube and digested for 2 to 3 hours in a mixture of 3 ml perchloric acid and 2 ml of nitric acid. The mixture was then diluted to 25 ml with distilled water, mixed, and the sediment allowed to settle. The solute was analyzed by atomic absorption for Cu.

The rock samples on the claims were crushed and pulverized to 100 mesh and then acid digested and analyzed by atomic absorption.

RESULTS AND INTERPRETATION

The results of the soil sampling were plotted on a 1:10,000 scale map (Figure 3). The values on the HG 3 claim are generally low with a few isolated anomalous values occurring locally. Two adjacent samples, 100m apart assayed 188 ppm Cu and 215 ppm Cu and were the only ones warranting examination. A narrow fracture in a breccia hosts a small amount of malachite and is on strike with the 188 ppm soil sample 1m away. A rock geochem from this outcrop assayed 670 ppm Cu. No copper mineralization was found around the 215 ppm Cu soil anomaly and a grab rock geochem sample taken from outcrop around the area yielded only a 102 ppm Cu assay.

Detailed follow-up soil sampling (50m x 25m spacing, see inset, Figure 3) yielded no other anomalous values.

NOTES ON SOIL SAMPLES

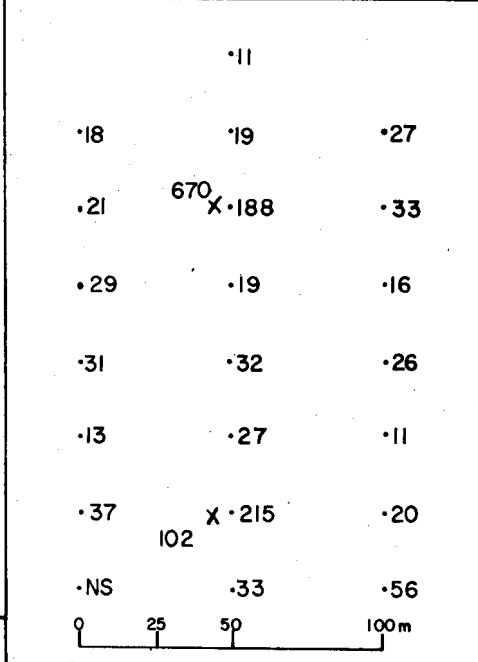
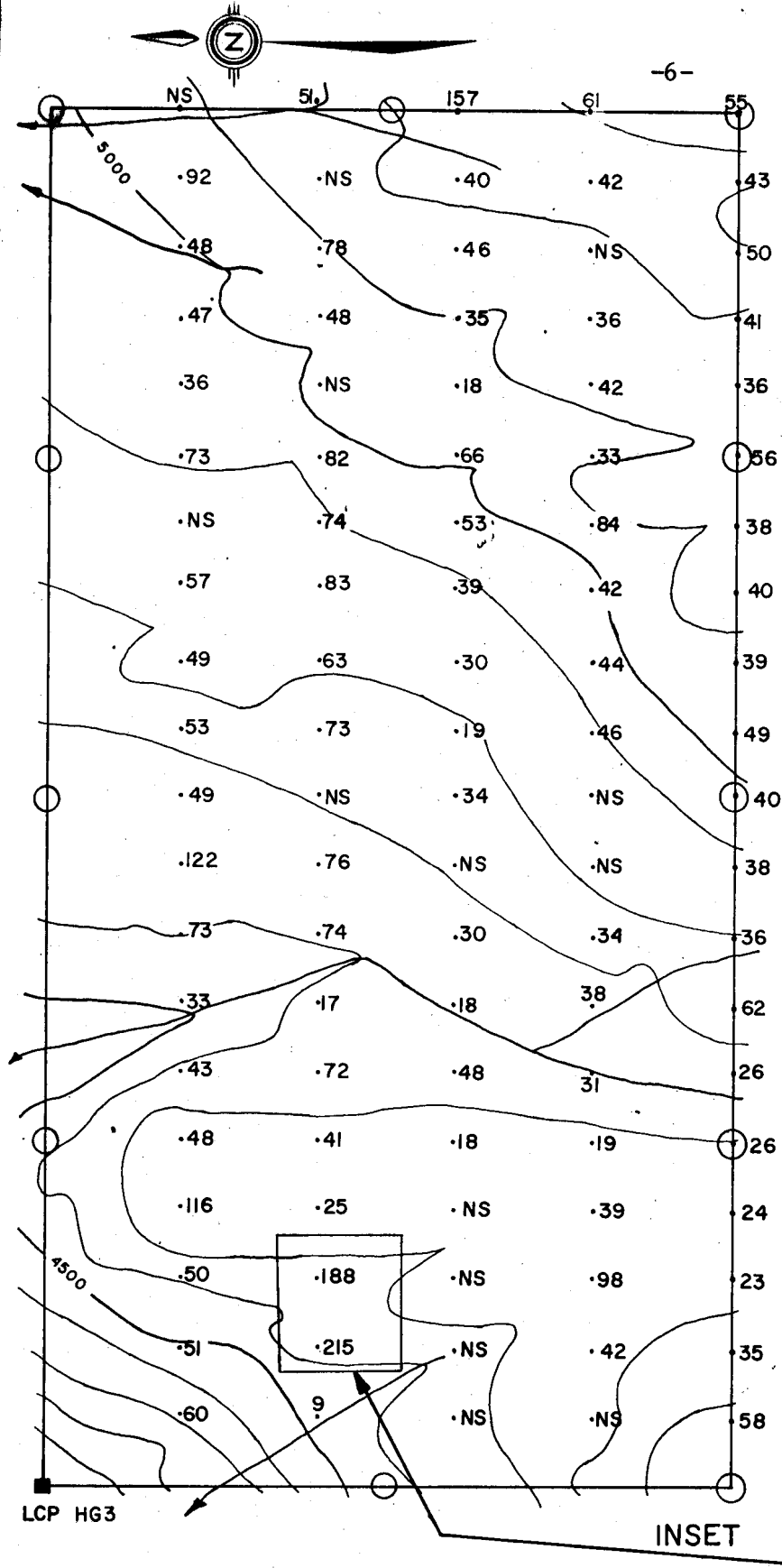
sample method : mattock & trowel
 sample depth : 10 to 30 cm
 horizon sampled : 'B'
 portion analyzed : - 80 mesh.
 analytical method:
 HClO₄ - HNO₃ digestion,
 atomic absorption

LEGEND

- soil sample location
- x rock geochem sample location
- NS not sampled

contours in feet
 contour interval 100 ft.

all values in ppm Cu



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HG3-GEOCHEMICAL PLAN-Cu

SCALE 1:10 000	LOCATION 92 H / 9W	DATE OCT. 29, 1980
SURVEY BY JN	DRAWN BY JG	NO. FIGURE 3


NC1241 - N.E.C.

CONCLUSIONS

1. No significantly anomalous copper values were found within the HG 3 claim. The geochemical survey reduces the possibility of finding a large near-surface "porphyry" deposit within the claim.
2. The absence of alkalic intrusions, commonly associated with copper mineralization in this area, also makes the ground appear unattractive.

RECOMMENDATIONS

No further work is recommended on the HG 3 claim.



John Nebocat

Vancouver, B. C.
October 29, 1980

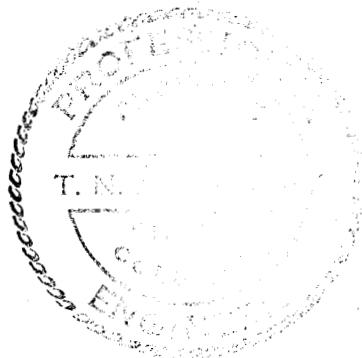
STATEMENT OF QUALIFICATIONS

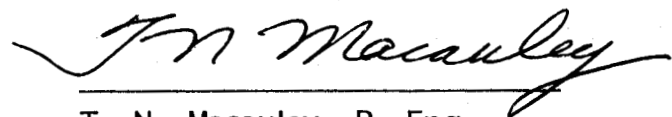
I, John Nebocat, do hereby certify that:

1. I am a geological technician presently employed by Newmont Exploration of Canada Limited.
2. I am a graduate of the British Columbia Institute of Technology (Diploma of Technology, 1974).
3. I have supervised the geochemical survey and the geological mapping described in this report.


John Nebocat

I, Terrence N. Macauley, do hereby certify that I supervised the work described in this report.




T. N. Macauley, P. Eng.
Exploration Manager
Western Division
NEWMONT EXPLORATION OF
CANADA LIMITED

STATEMENT OF COSTS

<u>Personnel</u>	<u>Date</u> <u>1980</u>	<u>Office</u> <u>Days</u>	<u>Field</u> <u>Days</u>	<u>Total</u> <u>Days</u>	<u>Daily</u> <u>Wage</u>	<u>Cost</u>
Geological Technician	May 25, June 7 Oct. 27, 28	2	2	4	\$84	\$336.00
Senior Assistant	May 19, 22, 22, 25, June 7		5	5	\$72	\$360.00
Junior Assistants (2)	May 19, 22, 23, June 7, Oct. 27, 28	2	8	10	\$58	\$580.00
<u>Accommodations</u>	15 man/days between May 19, 1980 and June 7, 1980 at \$15.00/man/day					\$225.00
<u>Food</u>	15 man/days at \$12.00/day					\$180.00
<u>4 x 4 Vehicle Rental and Fuel</u>	5 days at \$35.00/day					\$175.00
<u>Analyses</u>	105 soil samples for Cu at \$2.35				\$246.75	
	2 rock geochem for Cu at \$3.75				<u>\$ 7.50</u>	\$254.25
<u>Report Typing, Printing, etc.</u>						<u>\$100.00</u>
						<u>\$2,210.25</u>