

UMEX

5242

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94E/11E

GEOLOGICAL SURVEY, GEOCHEMICAL SOIL SURVEY,
AND GROUND MAGNETOMETER SURVEY

on the

CLAW NO. 2 GROUP OF MINERAL CLAIMS

Claw 25-31	Record Numbers 70805-70811
Claw 33	70813
Claw 75-77	71456-71458
Claw 51-52	70831-70832

Liard Mining Division

N.T.S. 94E/11E

57°37' North, 127°19' West

by

Colin V. Dyson, P.Eng.

Work Dates: Geochemical Soil Survey, August 2-4, 1974
Ground Magnetometer Survey, June 20-23, 1974
Geological Survey, June 20-August 4, 1974

Owner: Union Miniere Explorations
and Mining Corporation Limited

Date: October 1974

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5242 MAP.....

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GEOLOGICAL SURVEY, GEOCHEMICAL SOIL SURVEY,
AND GROUND MAGNETOMETER SURVEY ON
THE CLAW NO. 2 GROUP OF MINERAL CLAIMS

INTRODUCTION

In the period June 20 to August 4, 1974 a geochemical soil survey for copper, a ground magnetometer survey, and geological surveys were completed over parts of the Claw No. 2 Group of mineral claims.

The Claw No. 2 Group of mineral claims are located in the Liard Mining Division, B.C. and lie approximately ten miles west of Chukachida Lake at latitude $57^{\circ}37'$ north and longitude $127^{\circ}19'$ west (see Figure 1). Access to the property is by helicopter.

The claim area is mostly above tree-line in extremely rugged mountainous terrain in the Omineca Mountains where local relief varies several hundreds of feet.

The field work was directed and supervised by Mr. C. Dyson, P.Eng. Geological mapping was completed by Mr. R. Tolbert, B.Sc. (Geology) and Mr. Z. House (fourth year Geology student). Geochemical surveys were completed by Mr. D. Wade and Mr. A. Reeves. Ground magnetometer surveys were completed by Mr. J. Haskins.

GEOLOGY AND MINERALIZATION

The claim group is underlain by a conformable sequence of volcanic flows and thin interbedded volcanoclastic horizons, which are all presumed to be of the Upper Triassic-Lower Jurassic Takla Group. The volcanic flows consist of (a) purple porphyritic andesites where sodic feldspar phenocrysts are generally $>3/4''$ in length, and where the groundmass contains fine hornblende mafics. The purple coloration is due to the ubiquitous presence of hematite and magnetite finely disseminated throughout the rock; and (b) green-grey porphyritic andesites, where the sodic feldspar phenocrysts are generally $<1/4''$ in length, and where hematite is almost entirely absent. The volcanoclastic horizons are fine-grained tuffaceous sequences where banding is sometimes visible. A brown mafic-rich "speckled" latite is present on the Claw 26, 28, 51-52 claims. Small east-west faulting/shearing occurs on a local basis on the claims, but does not appear to disrupt the volcanic sequence significantly. Some chalcocite mineralization was found as irregular

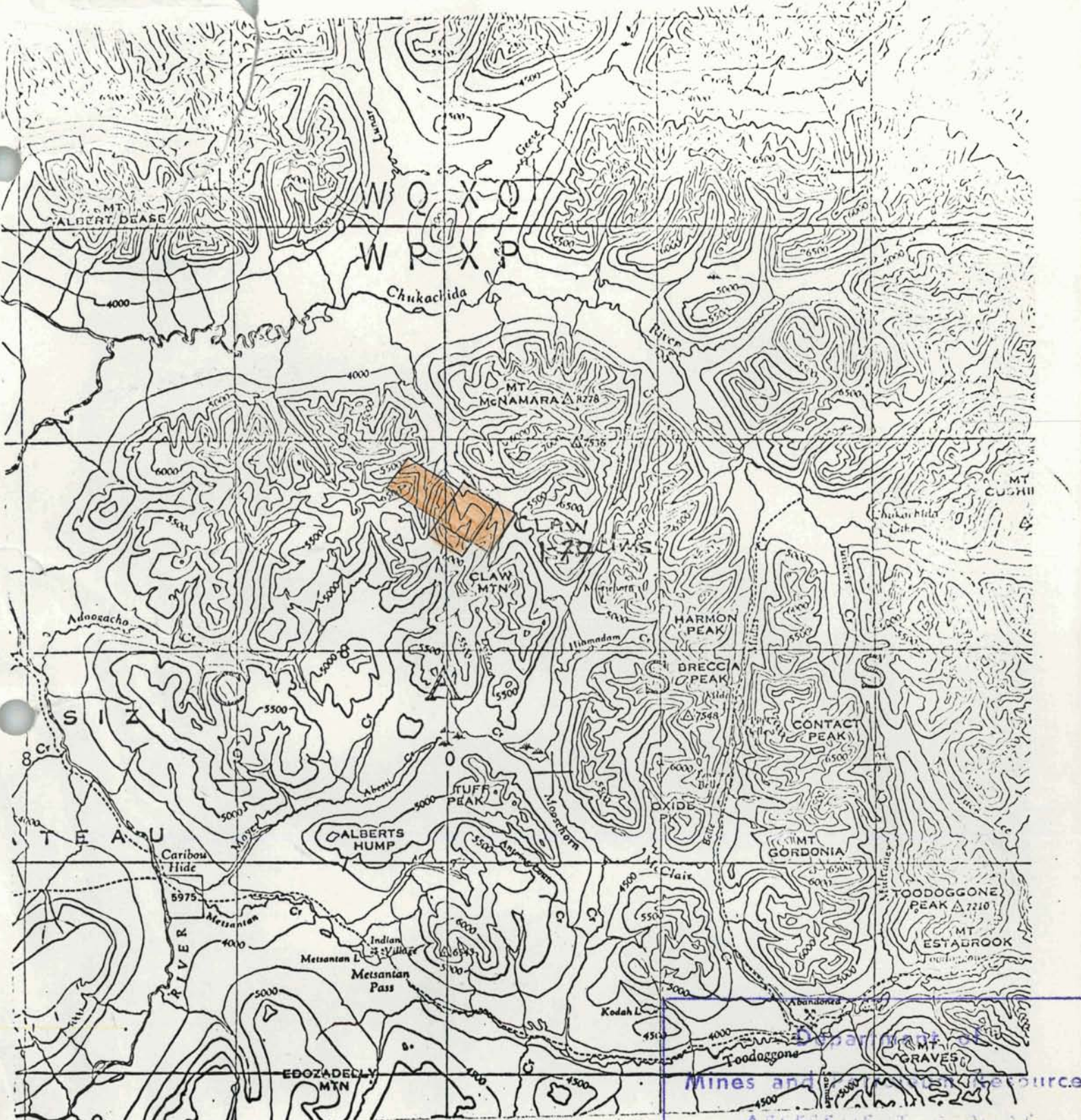


FIGURE 1

CLAW CLAIMS, LOCATION MAP

Liard Mining Division
 N.T.S. 94E/11 - Scale 1:250,000

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C. Dymov

veinlets in purple porphyritic float in talus on the Claw #76 claim.

GRID AND GROUND CONTROL

Ground control was possible by use of the 1"=800' contoured map which had been prepared by Lockwood Surveys (see Figure 2) in conjunction with air-photos and pocket altimeters.

Grid lines for the geochemical soil survey and the ground magnetometer survey were established by use of a "Topofoil Chain"¹ and compass, with stations marked with flagging at 100 foot intervals. The lines were tied into the pre-existing posts and obvious topographic features.

GEOCHEMICAL SOIL SURVEY

Methods and Soil Development

In the course of the survey a total of 86 soil samples were collected over 3.84 miles of line grid, with samples spaced at 200 foot intervals, and analysed for copper. At each soil location a hole was dug with a mattock and where possible 4-6 ounces of well developed B horizon soil sample was taken with a stainless steel trowel. The soil sample was placed in a high wet-strength Kraft sample bag and appropriately marked. The soil development for the areas underlain by the claims is:

- Ao: Organic matter, undecayed leaves, twigs, normally 0 - 1 inch thick but up to two feet in swampy areas.
- Al: Decomposed organic debris, organic-rich humus horizon, black in colour, generally absent from claim area.
- B: Brown to orange in colour, accumulation of clay and/or organic matter. Thickness variable but generally absent from claim area.
- C: Weathered rock fragments mixed with B.

Analytical Treatment of Soil Samples

The soil samples were analysed by Chemex Labs Ltd. in North Vancouver.

¹The Topofoil Chain is a "lost" thread measuring device in which a counter accurately records in feet from 0 to 15,000 feet the length of thread unreeling from the unit when measuring a length or distance covered. The operator attaches the end of the thread to a fixed point, the counter is set at zero and the operator moves on foot carrying the Topofoil Chain. As the thread unwinds, the counter records the length. The counter readout is accurate to $\pm 0.2\%$; on completion of a measurement the counter is reset at zero. The biodegradeable thread is cut and abandoned.

The samples were dried in their respective sample bags in electric driers at a temperature of 80°C, and then sieved to a -80 mesh through a nylon screen. One-half gram portions of the screened soils were digested for 2 to 2½ hours at 203°C in a 70% perchloric and 30% concentrated nitric acid mixture. The digested samples were cooled and bulked to 25 ml. with distilled water and allowed to settle. The resulting samples were analysed by atomic absorption for copper. Detection limits of this method are given as 1 ppm for copper.

Results

Statistical analyses of the copper results on the Claw claims defined two populations of 10-100 ppm and +150 ppm copper², the 100-150 ppm range is a zone of overlap. Anomalous copper values are considered to be those of the +150 ppm population.

Small anomalous areas present on the Claw 25, 30, 31, and 51 claims (see Figure 4), are interpreted to mostly relate to mechanical dispersion of mineralized talus down the fairly steep hillsides in the respective areas. Detailed prospecting will be needed to confirm this.

GEOPHYSICAL SURVEY

Field Procedures and Data Processing

The ground magnetic survey was completed with a McPhar MF-700 Fluxgate vertical component magnetometer. The reading accuracy of the instrument is ±10 gammas below the 1000 scale and ±20 gammas above the 1000 scale. Readings were taken generally every 100 feet along the N85E - S85W grid lines. Diurnal time corrections of the geomagnetic field were made by checking every two hours with established standard base stations located on the base line at every second cross line. The operator traversed a given portion of the grid area in a loop-like fashion checking in at respective standard base stations. The magnetic survey results are plotted on Figure 5 and contoured at 200 gamma intervals. The magnetic survey was performed by J. Haskins.

Results

Most of the grid areas are seen to be covered by glacial drift (see

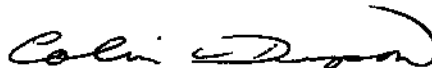
²Lepeltier, Claude, 1969, A Simplified Statistical Treatment of Geochemical Data by Graphical Representation: Economic Geology, Vol. 64, pp. 538-550.

Figure 3 and 5). A well defined magnetic high striking in an east-westerly direction is present on the Claw 31 and 33 mineral claims. This coincides almost exactly with a fault structure indicated on the geological map. It is interpreted as relating to a concentration along the fault zone of magnetite which possibly is derived from associated pyroclastic beds where magnetite was noted in the geological report.

CONCLUSIONS AND RECOMMENDATIONS

1. Geological mapping of the claims has shown they are underlain by a sequence of volcanic flows and pyroclastics.
2. The magnetometer survey confirmed the presence of at least one geological structure.
3. The geochemical survey showed several small copper anomalies which are considered to relate to bedrock mineralization which has been mechanically dispersed as talus down steep hillsides.
4. Careful prospecting in the areas of the small geochemical anomalies is warranted to locate their bedrock sources.

Respectfully submitted,



Colin V. Dyson, P.Eng.

STATEMENT OF COSTS

Field:

Geological Survey		
R.S. Tolbert - 6 days @ \$40/day (June 20-25)		\$ 240.00
Z. House - 8 days @ \$30/day (June 27-Aug. 4)		240.00
Geochemical Survey		
A. Reeves - 3 days @ \$20/day (Aug. 2-4)		60.00
D. Wade - 3 days @ \$20/day (Aug. 2-4)		60.00
86 sample analysis, preparations, freighting to lab.		129.00
Magnetometer Survey		
J. Haskins - 4 days @ \$25/day (June 20-23)		100.00
Supervision, Engineering		
C.V. Dyson - 3 days @ \$65/day (June 20-22)		195.00
Accommodations		
27 days @ \$12/day		324.00
Equipment Rental - MF-700 fluxgate magnetometer		
4 days @ \$10/day		40.00
Transportation		
3½ hours Hughes-500 Helicopter @ \$200/hour		700.00
70 gallons JP-4 fuel @ \$1.50/gal.		105.00

Office:

C.V. Dyson - 2 days @ \$65/day (Oct. 16-17)		130.00
R.S. Tolbert - 4 days @ \$40/day (Oct. 15-18)		160.00
Base-map production @ 1"=800' with 50 foot contouring (Lockwood Surveys) approximately \$10 per claim area		130.00
Secretarial, Reproduction, Miscellaneous Costs		100.00
TOTAL		\$2,713.00



LEGEND

- Boundary of claims in group no.2
- Outline of group no.1
- 25 Claim number
- Geologic boundary
- ~~~~~ Fault, defined/ inferred
- 7 Purple porphyritic andesite
- 6 Brown-speckled latite
- 5 Purple to redish-brown tuff-agglomerate
- 4 Undifferentiated tuff and agglomerate
- 3 Fine-grained, red tuff
- 2 Altered microsyenite intrusive
- 1 Talus, glacial drift

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To accompany an Assessment Report of Geological Survey, Geochemical Soil Survey, and Ground Magnetometer Survey, on the Claw No. 2 Group of Mineral Claims, Liard Mining Division, by Colin V. Dyson, P.Eng.

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Figure No 3

CLAW No. 2 GROUP

GEOLOGY

Scale: 0 100 200 ft

Drawn by: DHC
Date: Oct 1974
Survey by: RST

Colin V. Dyson



LEGEND

- Boundary of claims in group no.2
- Outline of group no.1
- 25 Claim number

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To accompany an Assessment Report of Geological Survey, Geochemical Soil Survey, and Ground Magnetometer Survey, on the Claw No. 2 Group of Mineral Claims, Liard Mining Division, by Colin V. Dyson, P.Eng.

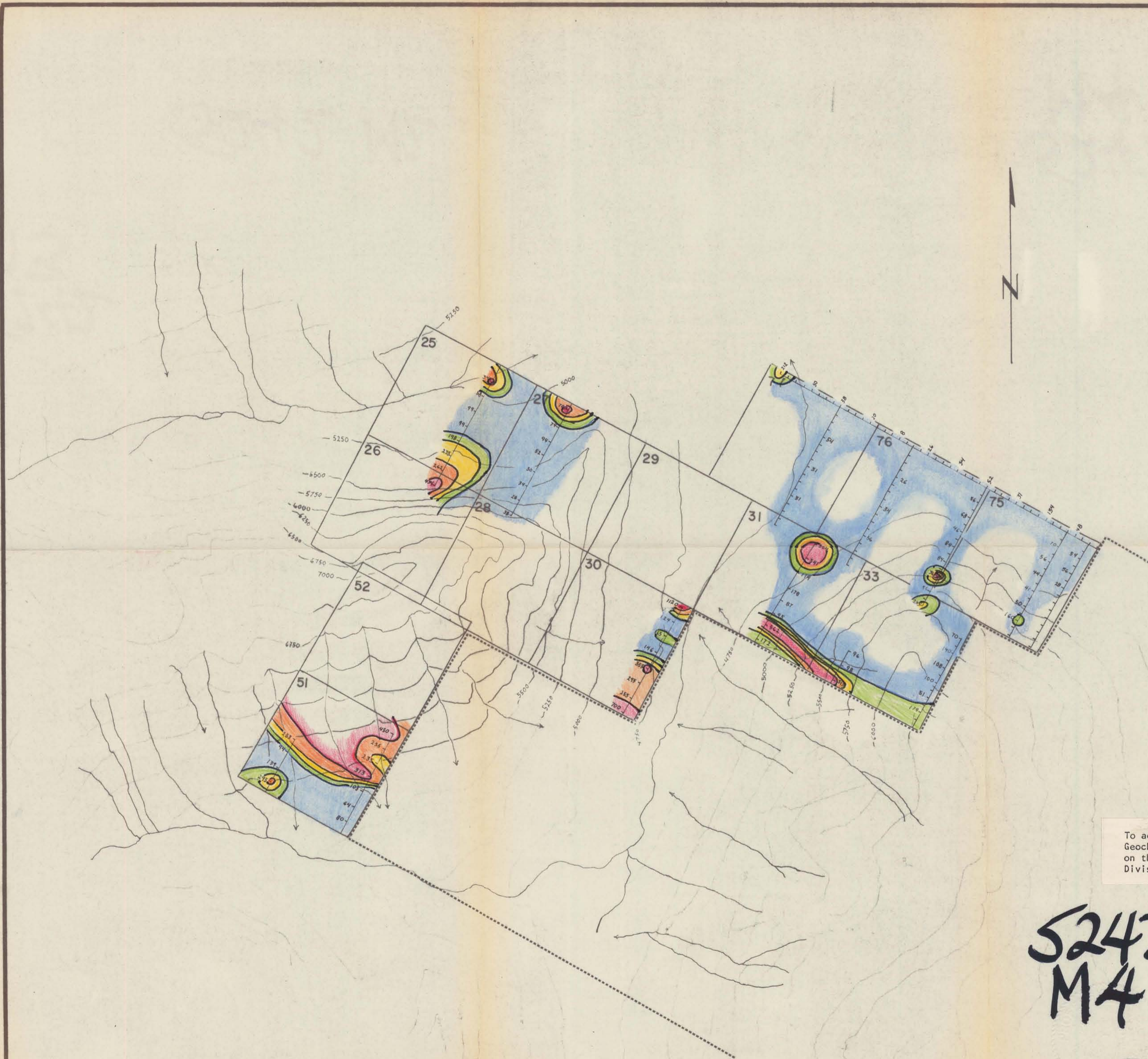
Figure No.2

CLAW No.2 GROUP
5242 M2

Scale: 0 400' 800'

Drawn by: DHC
Date: Oct. 1974
Survey by: RST

Colin V. Dyson



LEGEND

- Boundary of claims in group no.2
- Outline of group no.1
- 25 Claim number
-
-
-
-
-

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To accompany an Assessment Report of Geological Survey, Geochemical Soil Survey, and Ground Magnetometer Survey, on the Claw No. 2 Group of Mineral Claims, Liard Mining Division, by Colin V. Dyson, P.Eng.

Figure No. 4

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MA

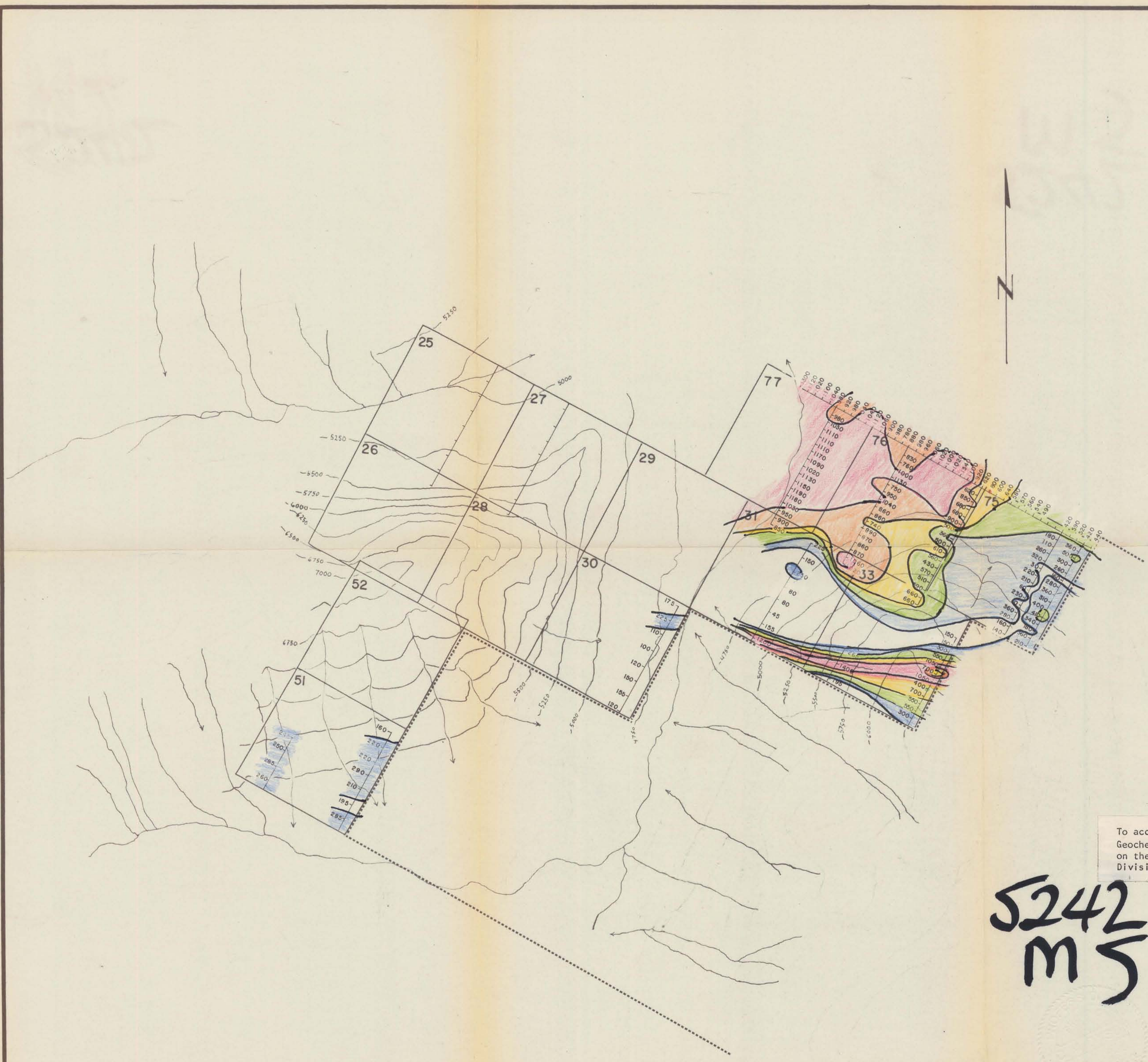
CLAW No. 2 GROUP
COPPER GEOCHEMISTRY

Values in ppm

Scale:

Drawn by: DHC
Date: Oct. 1974

Colin V. Dyson



LEGEND

- Boundary of claims in group no.2
- Outline of group no.1
- 25 Claim number
- [Pink Box] >1000 gammas
- [Orange Box] >800 gammas
- [Yellow Box] >600 gammas
- [Light Green Box] >400 gammas
- [Blue Box] >200 gammas

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To accompany an Assessment Report of Geological Survey, Geochemical Soil Survey, and Ground Magnetometer Survey, on the Claw No. 2 Group of Mineral Claims, Liard Mining Division, by Colin V. Dyson, P.Eng.

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Figure No 5

CLAW No.2 GROUP
GROUND MAGNETOMETER SURVEY
McPHAR M700 FLUX GATE MAGNETOMETER

Scale: 0 800' 1600'

Drawn by DHC
Date Oct 1974
Survey by J.H.

Colin V. Dyson