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REPORT ON AEROMAGNETIC SURVEY
ON SOME T AND MA MINERAL CLAIMS
HOPE AREA, BRITISH COLUMBIA
ON BEHALF OF
MT. AGNES MINES LTD. (N.P.L.)

92 H/6 W

by

Richard O. Crosby, B.Sc., P.Eng.

January 19, 1968

CLAIMS:

<u>Titles</u>	<u>Record Numbers</u>
T 1 - 8	19185 - 92
MA 1 - 4	19719 - 22
MA 1 - 20	19699 - 718

LOCATION:

Approximately 7 miles north of Hope,
British Columbia
New Westminster Mining Division
49° 28' N - 121° 23' W

DATES: November to December, 1967

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REPORT ON AEROMAGNETIC SURVEY
ON SOME T AND MA MINERAL CLAIMS
HOPE AREA, BRITISH COLUMBIA
ON BEHALF OF
MT. AGNES MINES LTD. (N.P.L.)

INTRODUCTION

During November, 1967, an aeromagnetic survey was flown over some T and MA mineral claims, Hope area, British Columbia, on behalf of Mt. Agnes Mines Ltd. (N.P.L.).

The survey area is centered approximately 49° 28' North, 121° 23' West, about 7 miles north of Hope, British Columbia. It is approximately 3.3 miles in length northwest-southeast by 2.4 miles in width northeast-southwest. Lines were flown at 1/8 mile intervals, oriented due northeast-southwest. Some additional lines were flown up valleys at various headings. All were at a mean terrain clearance of 300 feet. The topography of the grid is extremely rough with 5000 feet of relief between the highest and lowest points.

A Sharpe NPM-1 total intensity nuclear precession magnetometer was employed on this survey. It was towed on a cable approximately 75 feet below the helicopter. A 16 mm. single frame camera was employed for positioning purposes and a radar altimeter recorded height above the ground. Flight path recovery was achieved through the use of the camera and photomosaics of the area. Photomosaic scale was 1:7920.

The purpose of the aeromagnetic survey was to obtain information relating to the distribution of intrusive bodies containing magnetite. In the present geological environment these localities could be of interest for copper and nickel mineralization.

The aeromagnetic survey was under the direction of Mr. Richard O. Crosby, P.Eng., with assistance from Mr. Ronald Pollard.

PRESENTATION OF DATA

The basic information is presented as a transparent overlay on a scale of 1:7920 and is titled Hope Area # 1. The planimetry on these sheets has been traced from uncontrolled photomosaics employed for navigation purposes. The magnetic values are shown as total intensity contours with a contour interval of 20 gammas. Corrections have been made for diurnal variations and instrumental drift by means of a recording base station and tie lines. These tie lines consist of lines flown at right angles to the flight lines.

DISCUSSION OF RESULTS

The value of the earth's total magnetic field in the survey area is approximately 58,800 gammas at an inclination of $-73^{\circ} 30'$ north.

The most prominent magnetic feature on the isomagnetic map is a complex positive anomaly located in the southwestern portion of the area reaching a maximum of about 200 gammas above the general background level. Two anomalies having the same amplitude were measured approximately 1500 feet north and 1500 east of this anomaly. The remainder of the magnetic field is flat except for a steep gradient measured over the western portions of Claims T3, T5 and T7 and a linear magnetic feature reaching a maximum of about 120 gammas on flight line 13 in the extreme eastern part of the survey area.

The positive anomalies are interpreted as the magnetic expressions of basic intrusives underlying the survey area and possibly reflecting to some extent the effects of topography.

The gradient band is interpreted as resulting from the edge of a similar basic rock mass not fully covered by the area included in this report.

CONCLUSIONS AND RECOMMENDATIONS

Since nickel and copper mineralization is known to be associated with basic intrusives in the vicinity of the survey area, the anomalies indicated by the aeromagnetic survey warrant further investigation.

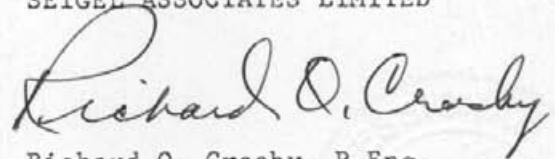
1) The positive magnetic anomalies discussed above should be investigated by detailed geologic mapping and ground magnetic profiling to determine the causative sources.

2) Stream beds in the area should also be investigated by taking magnetic readings every 100 feet.

3) Additional work will be predicated on the results of recommendations 1 and 2 above.

Respectfully submitted,

SEIGEL ASSOCIATES LIMITED



Richard O. Crosby, P.Eng.
Geophysicist

Vancouver, B.C.
January 19, 1968.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of a geophysical survey on behalf of
Mt. Agnes Mines Ltd. (N.P.L.)

I, Richard O. Crosby

of 115 - 744 West Hastings Street, Vancouver

in the Province of British Columbia, do solemnly declare that an aeromagnetic survey has been executed on some A, I, T and MA claims in the Hope area of British Columbia between November and December, 1967. The following expenses were incurred:

(1) Line Mile Charges		
22 line miles @ \$45/line mile		\$ 990.00
(2) Subsistence & Quarters		<u>88.00</u>
		\$1078.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

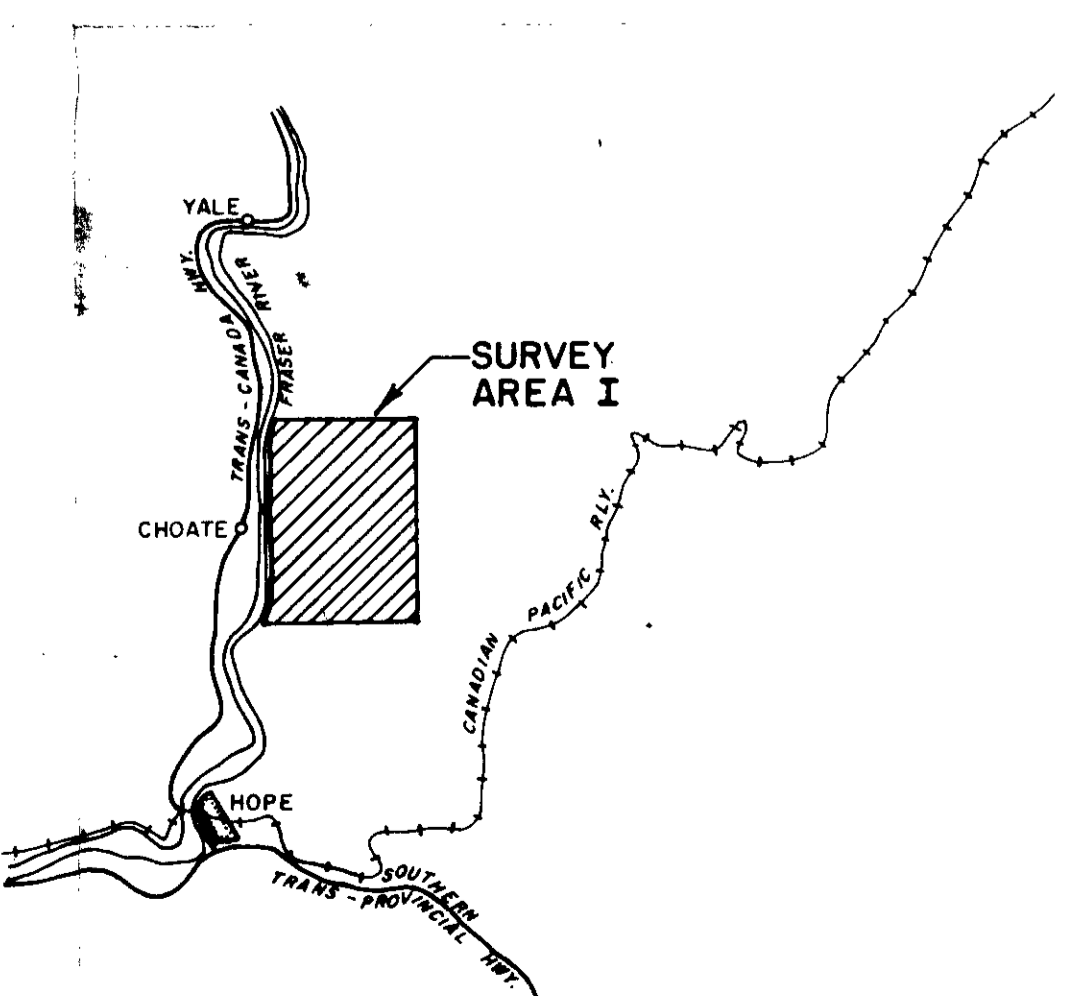
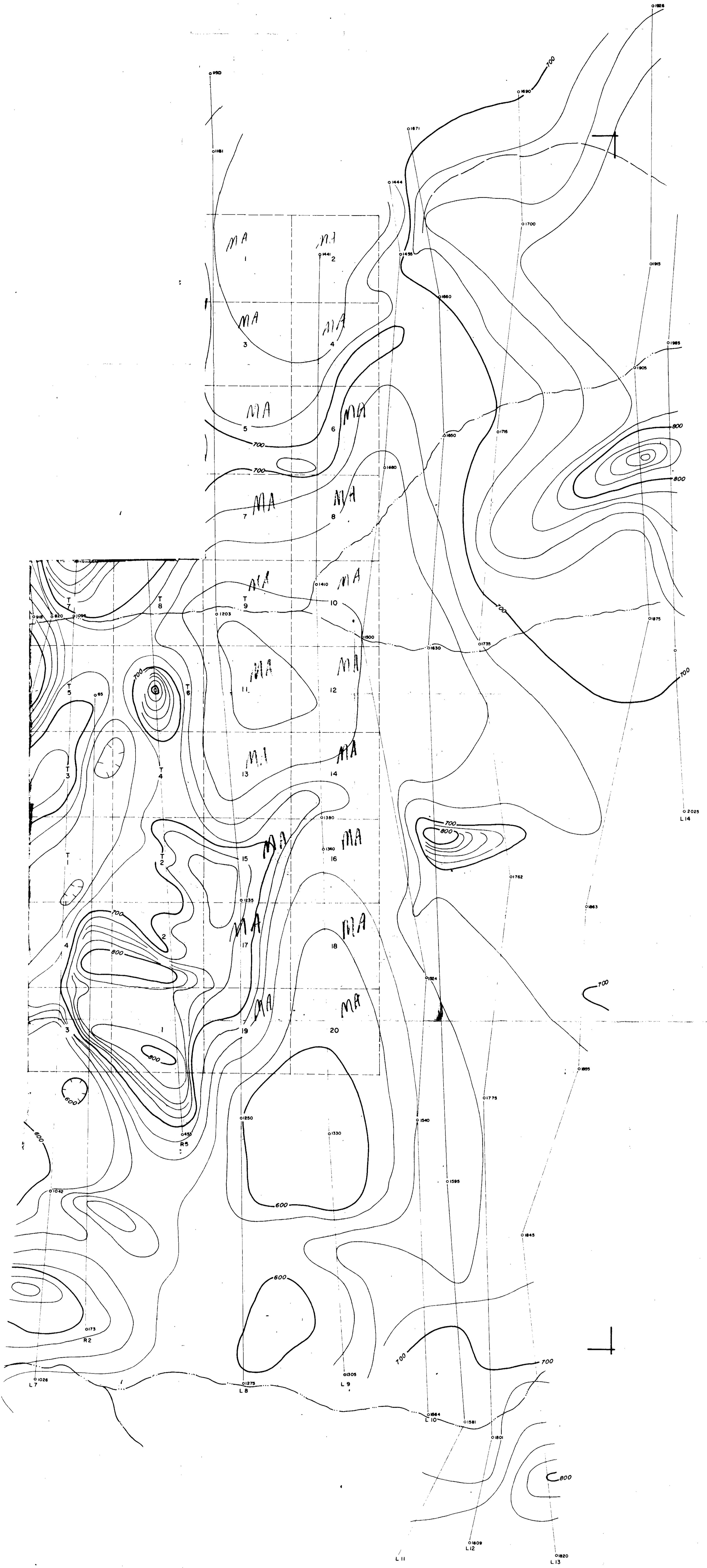
Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 5
day of January, 1968, A.D.

Richard O. Crosby

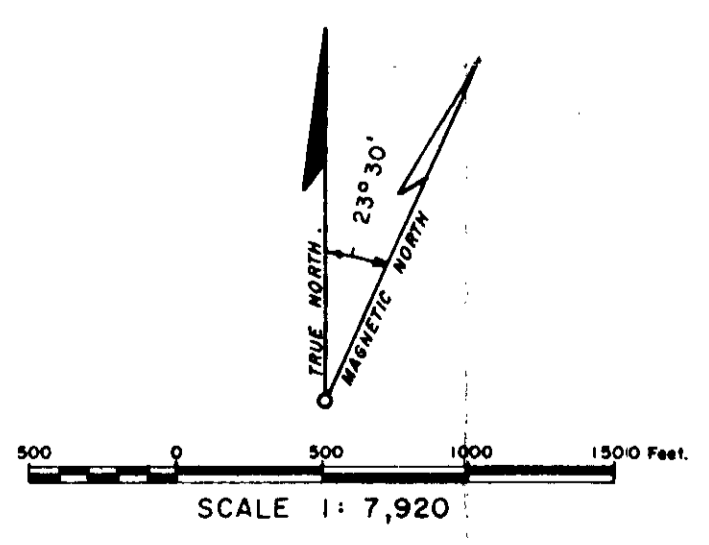
S. Jeannotte
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

★o

Sub-mining Recorder



LOCATION MAP



LEGEND

- Magnetic inclination - 73° 30' NORTH
- Approximate total magnetic intensity - 58,800 gammas
- Flight line interval 1/8 mile
- Flight lines and photo identity points
- Isomagnetic Contours : 100 Gammas... (solid line)
- 20 Gammas... (dashed line)
- Mag. Dep. (dotted line)

MT. AGNES MINES LIMITED N.P.L.
HOPE AREA I, BRITISH COLUMBIA
AIRBORNE MAGNETOMETER SURVEY

CONTOUR INTERVAL - 20 GAMMAS

FLOWN AND COMPILED BY
SEIGEL ASSOCIATES LTD.
 NOVEMBER 1967

1226

*To accompany a geophysical report
 Richard O. Conroy
 Jan. 9, 1968*