

32D12SW0125 63.71 HARKER

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September 3rd., 1946.

Mr. H.P. Bellingham,  
St. Anthony Mines Limited,  
159 Bay Street,  
Toronto 2, Ontario.

Dear Sir:- REPORT ON GEO-MAGNETIC SURVEY ON HARKER TOWNSHIP  
PROPERTY OF ST. ANTHONY MINES LIMITED.

The work herein described, was conducted during the months of July and August of the current year. Line-cutting was completed late in July followed by the magnetic survey in August.

SUMMARY AND RECOMMENDATIONS

The survey on the nine (9) claims held by St. Anthony Mines Limited in Harker Township, shows that the area is near the contact of the "Dale Intrusive" but completely underlain by volcanics. A small area of magnetic "lows" as outlined on Plan No. 1, is presumed to be an acidic intrusive rock probably related to the main intrusive boss. The wide-spread occurrences of syenite in the area, suggests that this rock type could be represented by the zone of "low" intensities.

On a structural basis, the area is of better than average interest and in the writer's opinion, will warrant a limited drilling program. As the area is completely drift-covered, further exploration can be conducted only by drilling and a section is shown on the Plan which appears, on the basis of present information, to offer the most favourable results.



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PLAN NO. 1.

Iso-Dynamic Contours of  
Vertical Intensities and  
Geological Interpretations.

The nature of the magnetic contours indicate that heavy overburden depths will not be encountered and it is unlikely that such will exceed 50 feet except in some local areas, which is to be expected.

#### PROPERTY

The property held by St. Anthony Mines Limited and covered by this report, lies in the Township of Harker, District of Cochrane, Province of Ontario, and comprises a total of 9 mining claims, numbered as follows and consisting of approximately 189 acres.

L-44200-01-02-03-04-05-06-07 and 08.

Your claims are bounded on the north by the Graham-Bellingham Group, while to the south and west respectively, the properties of Greenlee Mines Limited, American Yellowknife Gold Mines Limited and Dale Gold Mines Limited, lie contiguous to your boundaries.

The Township of Harker is approximately 40 miles east of the town of Matheson on the Ontario Northland Railway. From here, a bush road leads to the property of Consolidated Mining & Smelting Company Limited, a distance of about 30 miles. For transportation from this point on, one must resort to tractor or ordinary packing methods. A rough bush road suitable only for tractor transportation, crosses the Dale and American Yellowknife groups, approximately one-half mile west of your western boundary.

#### GEOLOGY AND INTERPRETATIONS

While no outcrops were located on your claims, the work conducted by this Company on the numerous properties to the north, west and south,

materially assists the interpretation of the magnetic results.

It is known with reasonable certainty, that the "Dale Intrusive", comprising a medium-grained hornblende granite with perhaps some associated acidic phases, cuts across the American Yellowknife group with a south-easterly trend and thence onto the Greenlee property. The northern contact of this intrusive will occur very near the south-west corner of Claim L-44208. It is equally certain that your property is underlain by volcanic formations of intermediate to basic type, although these appear to have been intruded by an acidic type rock, probably related to the granite. The general trend of this apparent intrusive is north-south, however, near the northern boundary of Claim L-44204 a strike change occurs and on Claim L-44200 the trend is east-west.

The area underlain by your group is favourably located for the deposition of mineralization insofar as regional geology is concerned, and it is the writer's belief that a drilling program of 3,000 to 5,000 feet is here warranted.

#### MAGNETIC SURVEY DATA

The survey was conducted with a Wolfson vertical type variometer set at a sensitivity of 27.1 gamma per scale division and having a temperature coefficient of 6.0 gamma per degree Centigrade. All field stations were corrected for temperature to the nearest one degree Centigrade following which, a maximum closure of 21 gamma, attributable to diurnal variations, was obtained. The accuracy of this survey will therefore approximate  $\pm$  12 gamma per station.

The survey was tied into the control station at 0+00 on the Dale

Base line which is assumed to have a value of 2922 gamma and to an additional Regional Control at the 4 mile post on the Harker-Garrison Township line established as 612 gamma.

Lines were cut by this Company and the total man-day distribution relating to the survey, is, as shown below:

<u>OPERATION</u>	<u>MAN-DAYS</u>
Line-cutting - 9 miles (including tie lines)	31
Magnetic survey	24
Travelling and packing	18
Office and drafting	12
Supervision	6
Geology	<u>2</u>
TOTAL -	<u>87</u>

The Base Control Station used for this survey is located at the Carmac camp site. A total of 337 observations were taken on your property made up as follows:

Field Observations	288
Check Observations	12
Control Observations	<u>37</u>
TOTAL -	<u>337</u>

Yours very truly,

GEO-TECHNICAL DEVELOPMENT COMPANY LIMITED

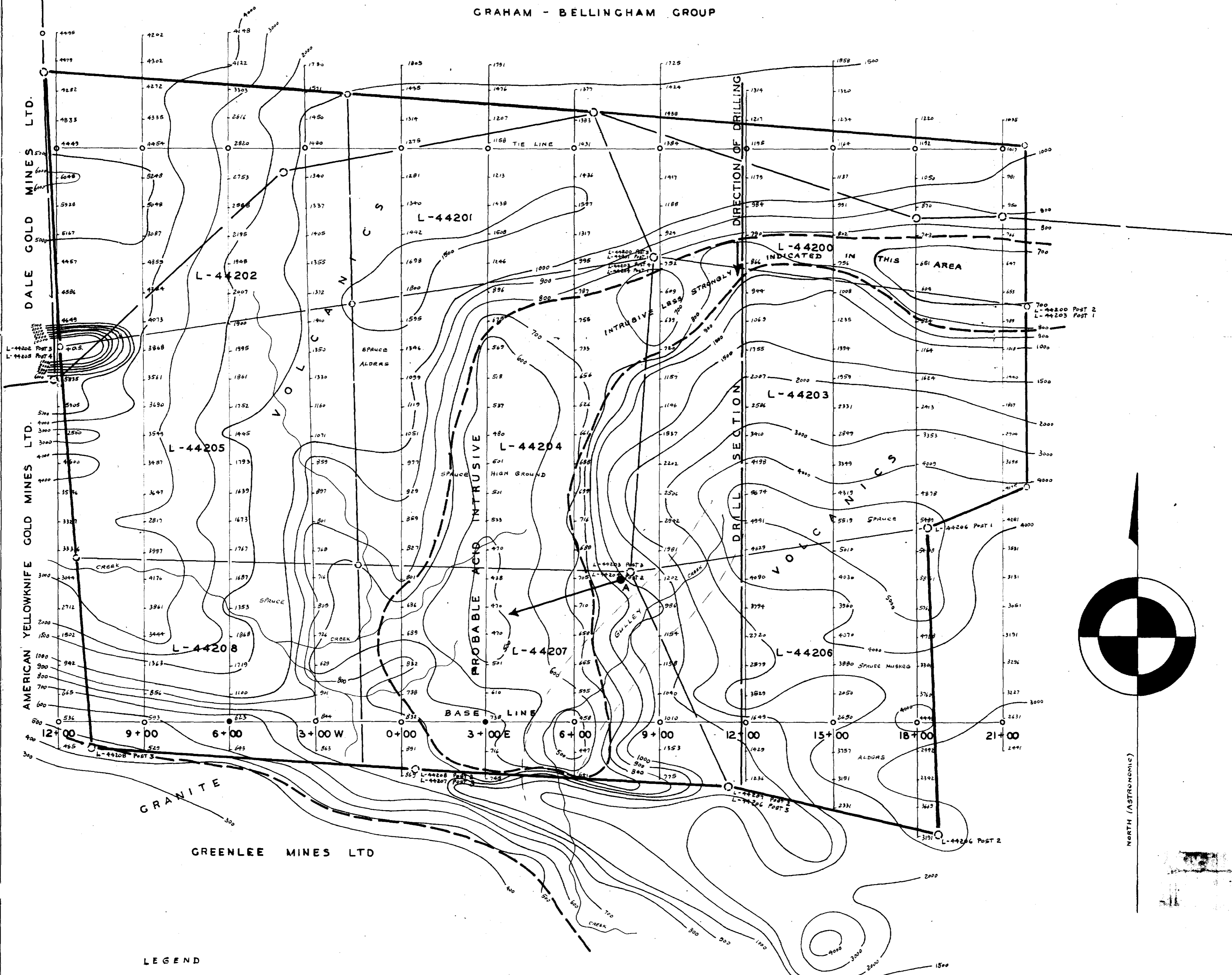
*J. T. Randell*

J.T. RANDELL - President.

0 + 00

GRAHAM - BELLINGHAM BASE LINE

GRAHAM - BELLINGHAM GROUP



LEGEND

- 0 - 500 GAMMA
- 500 - 1000
- 1000 - 1500
- 1500 - 2000
- 2000 - UP
- LINES SURVEYED, MAGNETIC INTENSITIES OBSERVED.
- MAGNETIC CONTOURS
- CONTROL STATION
- PROBABLE GEOLOGICAL BOUNDARIES INFERRED FROM MAGNETIC CONTOURS
- PROPOSED DRILL HOLES
- CLAIM BOUNDARY

ALL MAGNETIC READINGS TIED IN TO BASE CONTROL STATION WITH VALUE OF 2922 GAMMA AT 0+00 STATION ON THE BASE LINE OF DALE GOLD MINES LTD.

SCALE: 1 IN. = 200 FT.	<b>ST. ANTHONY MINES LIMITED</b>  ISO-DYNAMIC CONTOURS OF VERTICAL INTENSITIES AND GEOLOGICAL INTERPRETATION  HARKER TOWNSHIP DISTRICT OF COCHRANE ONTARIO	AUGUST 1946
DRAWN BY: A.G.S. <i>J. T. Randall</i>		PLAN NO. 1
GEOPHYSICAL SURVEY BY: <b>GEO-TECHNICAL DEVELOPMENT COMPANY LTD.</b>		

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St. Anthony Mines Ltd. Report #71



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Ch. No. 12/40 P.

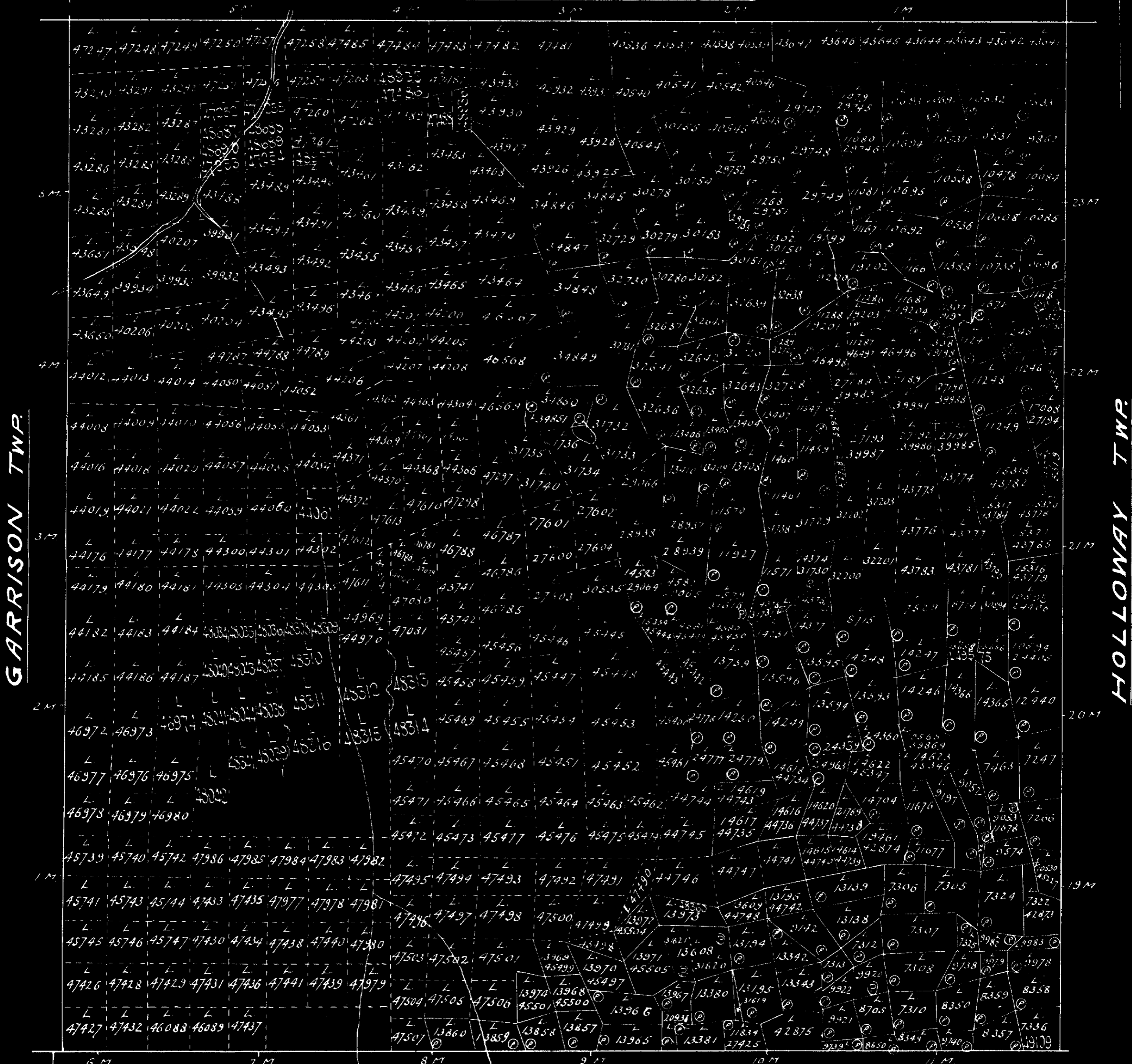
# PLAN OF HARKER TWP

LADDER LAKE MINING DIVISION.  
DISTRICT OF COCHRANE

Scale, 40 chains to an inch



## LAMPLUGH TWR



## ELLIOTT TWP

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