

Copper Man Mines Ltd.
85 Richmond Street West
Suite 1116
Toronto 1, Ontario



52K16NE0018 63.854 CURIE LAKE

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Gentlemen:

A magnetometer survey has been conducted by Geo-Technical Development Company Limited over your 41-claim group property situated near Papaonga Lake, Red Lake Mining Division, Ontario. This survey was carried out during the period from March 18th to April 5th, 1957. The following report describes the results of the geophysical work correlated with the known geology.

The magnetic results are plotted on the accompanying map (Plan No. 1) which is on a scale of 200 feet to the inch. The magnetometer readings were converted to gammas and areas of about equal magnetic intensity are contoured with continuous lines.

CONCLUSIONS AND RECOMMENDATIONS

One main anomalous zone, measuring at least 4,000 feet long, and three less intense anomalies were outlined by the surveys. The main anomalous zone, which covers portions of claims 39342, 39345, 39348, and 39351 is believed to be the only one which is caused by iron formations of possible economic value. Systematic development drilling could be undertaken to outline the ore bodies and determine tonnage. The drilling may prove the ore body too small for exploration by itself, but in the event that the district would become an important producer of iron ore, the deposit on the Copper Man property would add to the reserves of the district.

Three diamond drill holes are recommended to test the width and grade of the iron formations:

D. D. No. 1 on line 36E is designed to intersect two peaks in the magnetic profile which are believed to be

caused by two separate bands of iron formation.

D. D. No. 2 on line 20E will intersect the southern band of iron formation.

D. D. No. 3 on line 16E will intersect the northern band of iron formation.

If these holes are successful, it would be advisable also to test the high magnetic zone where the readings are lower as on line 0 00 or 4E; this could possibly extend the length of the workable iron deposit.

PROPERTY, LOCATION AND ACCESS

The property is located at Lake Papaonga, approximately 58 miles north-northwest of Sioux Lookout, Ontario. It is comprised of 41 claims numbered as follows:

Claims 40968 - 40984, inclusive
39338 - 39357, inclusive
39404 - 39407, inclusive

Ten of the northwestern claims are partly or wholly covered by water. The lake affords excellent landing facilities for float or ski-equipped aircraft which may be chartered in Sioux Lookout.

TOPOGRAPHY

The topography of the area is typical of the Canadian Shield and is best described as an eroded peneplain. The few ridges, which generally do not rise more than 100 feet above lake level, are oriented about east-west and are probably related to the structure of the underlying rocks. One particularly steep cliff runs parallel to the creek near the south boundary of the property, it possibly marks the southern limit of quartz-rich beds such as

quartzite and greywacke's which are highly resistant to erosion.

GENERAL GEOLOGY

The geology of the area is shown on Geological Survey of Canada Map 347A on a scale of 2 miles to the inch. On this map the property appears to be underlain almost entirely by Keewatin rocks, consisting of intermediate and basic volcanics with iron formation and slaty sediments; a band of quartz-biotite schist, about one mile wide is in contact with these rocks near the south boundary of the property and possibly underlies a portion of the southern claims; east of claim 39340 and south of the creek, the property appears to be predominantly underlain by a granite intrusive.

The geology on map 347A is considerably simplified due to the scale of mapping; more details of the geology are given in areas further east, where the Keewatin rocks are separated into two bands consisting of Greenstone to the north and predominantly sediments to the south. The iron formations are closely associated with the sediments which are intruded by numerous dykes of quartz porphyry, granite and pegmatite (see map No. 31 E, Ontario Department of Mines).

The formations generally strike approximately east-west and parallel to the ridges, their dip is steep to the south or vertical.

Magnetic variations have been noted in this area since early times when trappers and Hudson's Bay Company officials used the Albany River route to their trading posts along the river. The first test drilling was done on an island in St. Joseph Lake, about 50 miles east of the property. In recent months there has

been considerable exploration and development work on the iron formations in the general vicinity of the property.

INTERPRETATION OF THE MAGNETOMETER SURVEY RESULTS

The magnetic results definitely show the lenticular character of the iron formations in the area, the anomalies have a general east-west trend but with the exception of those in the eastern portion of the property, they are not traced over very long distances.

The main anomalous zone covers the southern part of claims 39342, 39345, 39348 and 39351, it measures approximately 4000 feet in length and appears to be caused by at least two bands of highly magnetic iron formation. The anomaly continues westward into claims 39339 and 39405 but it is much less intense, becoming poor in magnetic mineral content.

High magnetic readings were registered in the western part of the property at three locations, identified on Plan No. 1 as "B", "C" and "D"; these anomalies are probably underlain by lean iron formations of no economic value. The same interpretation probably holds true for the higher magnetic readings recorded in the eastern part of the property, north of the main anomalous zone.

Away from the interpreted iron formations, the variations in magnetic intensity are slight and do not indicate much variety in composition or susceptibility of the underlying rocks.

On line 16E, 500 feet south of the base line a sharp negative variation possibly indicates a more gentle dip southward of the formations, the negative reading would thus be caused by the positive pole of the magnetic body.

INSTRUMENT DATA

A Sharpe Magnetometer, Model A-2, with a sensitivity of 24 gammas per scale division was used except in areas of off-scale readings (over 13,000 gammas) where a Wolfson Type Magnetometer de-sensitized to 47.5 gammas per scale division was used. A base control station was established near base camp on the north side of Papaonga Lake, opposite claim 39404, and other control stations were established along the base line.

SURVEY DATA

A ground magnetometer survey was conducted by Geo-Technical Development Company Limited over the property of Copper Man Mines Ltd., consisting of 41 claims, at Papaonga Lake, Red Lake Mining Division, Ontario.

The survey was carried out during the period from March 18 to April 5, 1957, the results of which are shown on Plan No. 1 accompanying this report.

Two east-west base lines were cut and chained across the property, and picket lines were turned off at right angles to the base lines at intervals of 400 feet. A total of 34.7 miles of line was thus cut and chained.

The magnetometer survey was conducted along each picket line in the eastern claims, west of line 8W, readings were registered along every second picket line. Magnetometer readings were taken at 100-foot intervals and were converted to gammas, these are plotted on Plan No. 1 on the east side of the picket lines. A total of 22.9 miles was thus surveyed, requiring 1208 readings.

The number of 8-hour man-days required to complete the survey is as follows:

	<u>8-hour Man-days</u>	<u>Attributable to Assessment work</u>
Line cutting and chaining	58 x 4	232
Operating magnetometer survey	37 x 4	148
Drafting	5 x 4	20
Preparation of report & supervision	5 x 4	20
Office Typing	3 x 4	12
	<u>50</u> 108	<u>432</u>

Respectfully submitted,

GEO-TECHNICAL DEVELOPMENT COMPANY LIMITED

O. D. Maurice

O. D. Maurice, Ph.D.,
Prof. Eng. & Geologist

ODM:MS

Toronto, Ontario

May 8, 1957.

Tech. 50

Plan. 50 (incl. from 58)

100 x 4 = 400 41 = 4.8 (allow 10 per diem)

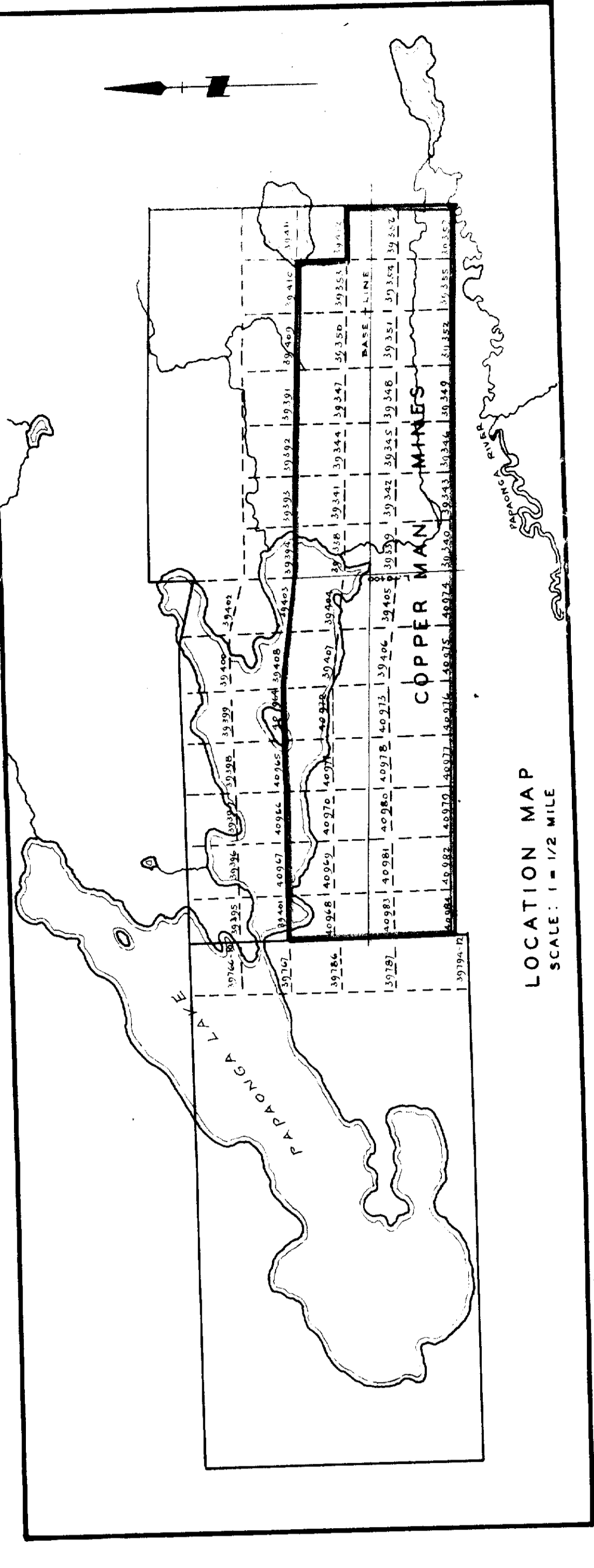
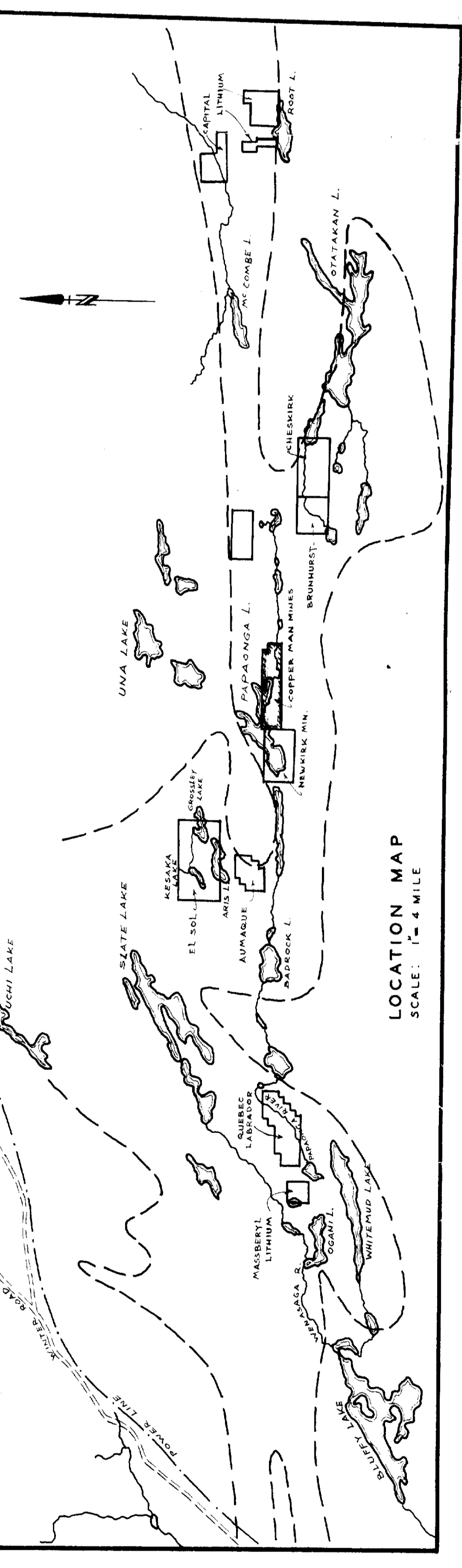
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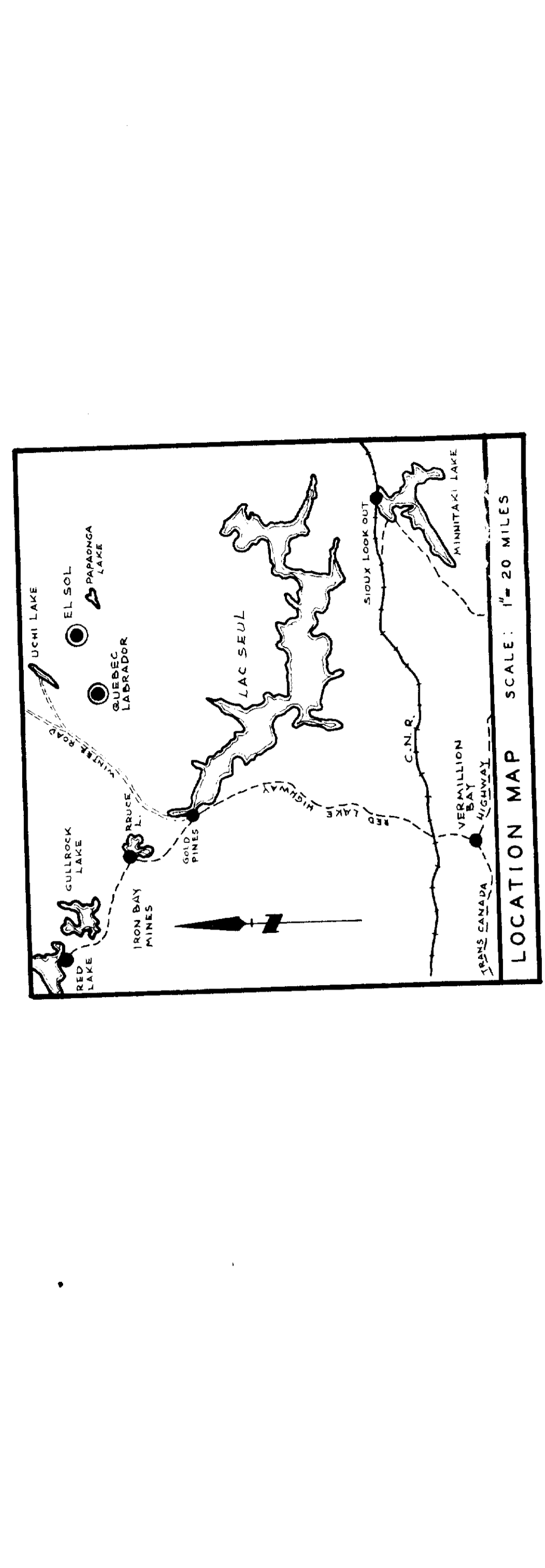
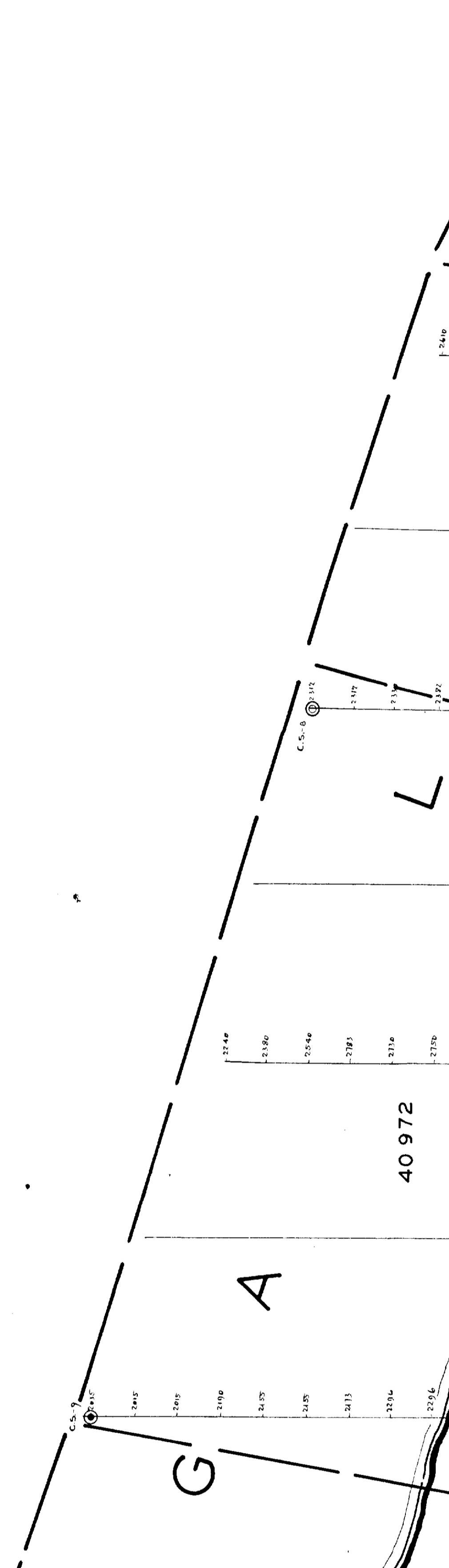
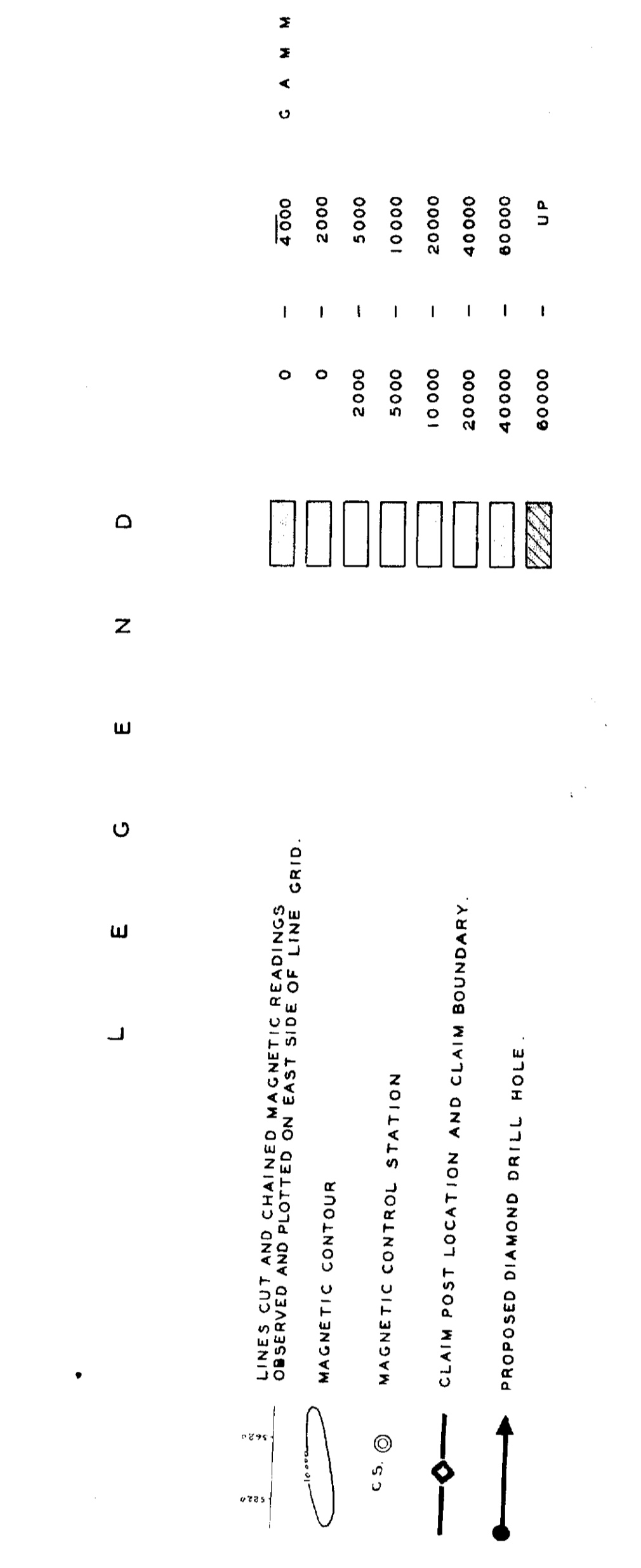
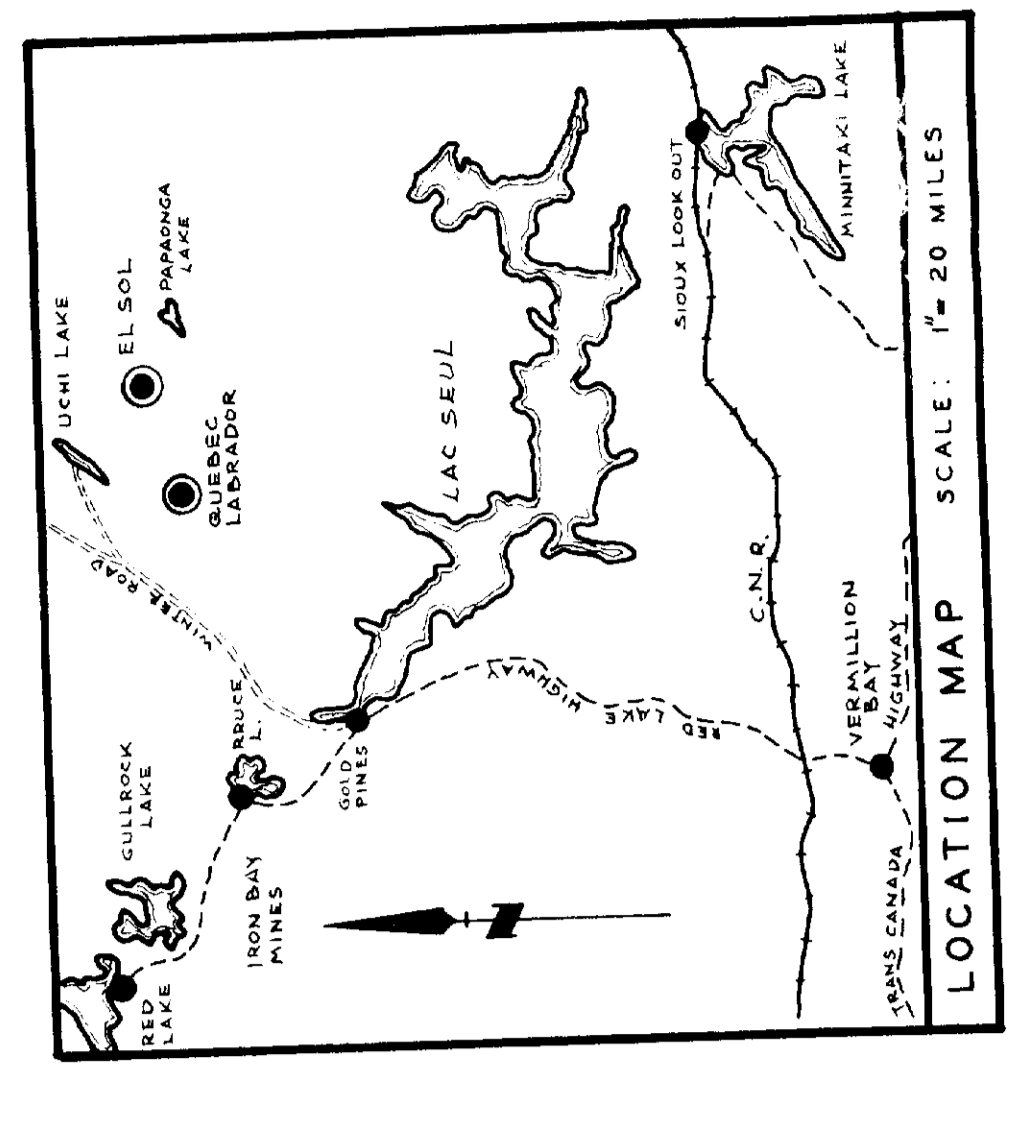
GEOLOGICAL SURVEY DATA ON PROPERTY OF
COPPER MAN MINES LIMITED
 ISO - DYNAMIC CONTOURS OF MAGNETIC INTENSITIES
 AND
 GEOLOGICAL INTERPRETATION
 RED LAKE MINING DIVISION
 DISTRICT OF KENORA
 ONTARIO

GEOLOGICAL INTERPRETATION
 GEO-TECHNICAL DEVELOPMENT COMPANY LIMITED

APRIL, 1957

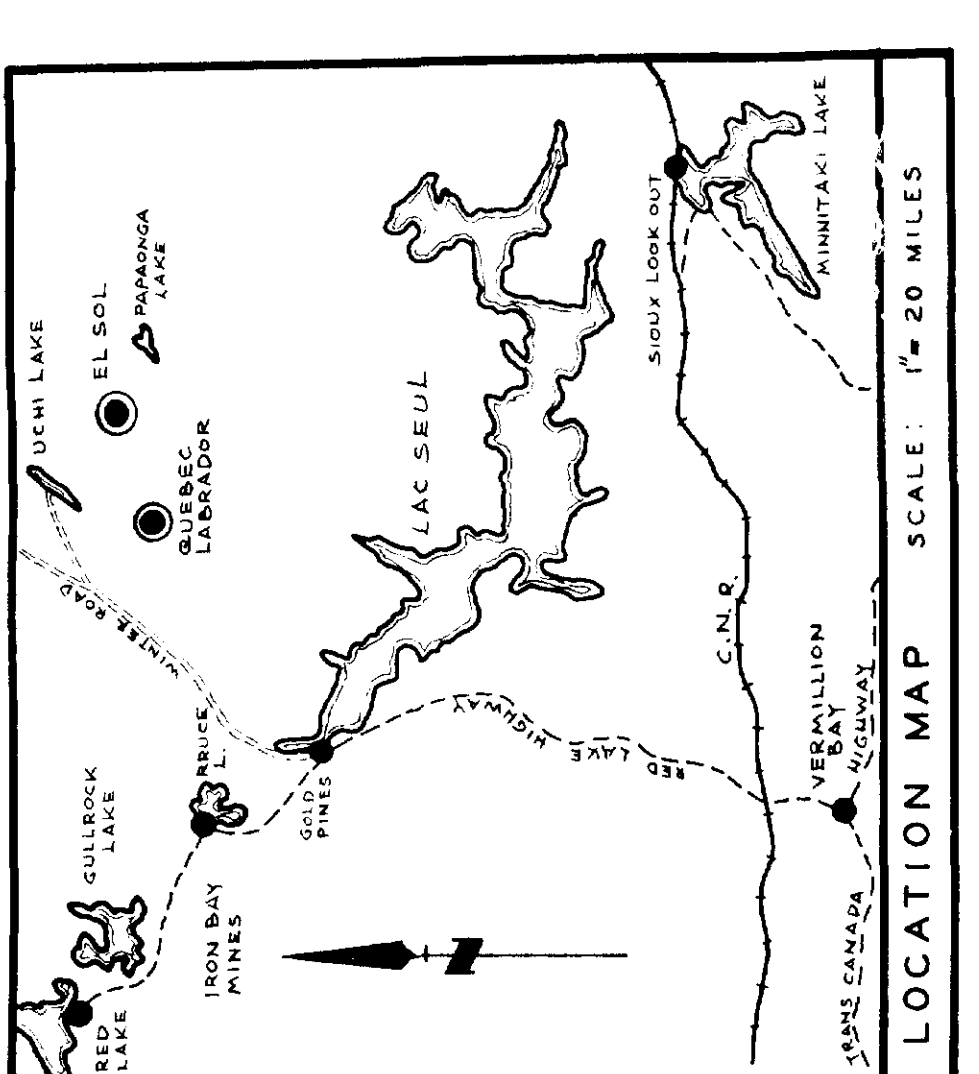
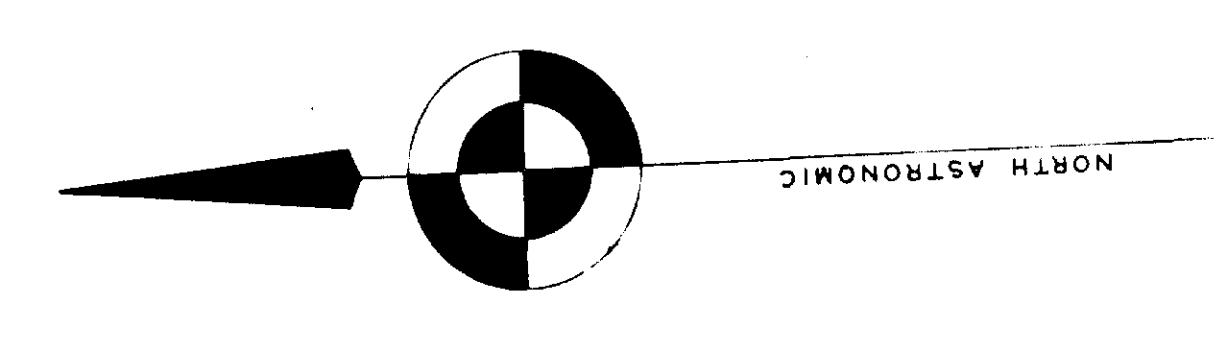
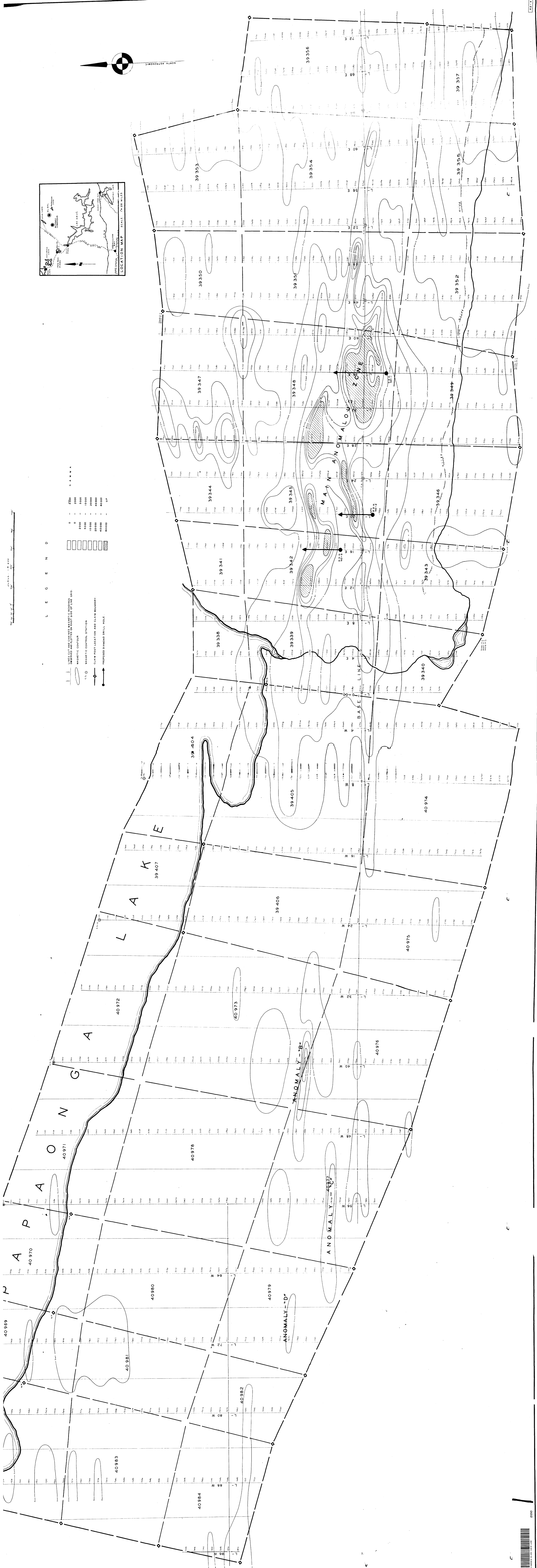


SCALE 1:25,000
 SCALE 1:125,000



- L E G E N D**
- LINES OF 50 AND CHANGED MAGNETIC RECORDS OBSERVED AND PLOTTED ON EAST USE OF LINE GRID.
 - MAGNETIC CENTRE
 - CS ○ MAGNETIC CONTROL STATION
 - CLAIM POST LOCATION AND CLAIM BOUNDARY.
 - ◊ PROPOSED DIAMOND DRILL HOLE.
- S A M M A**
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 - 2000 - 3000
 - 3000 - 4000
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 - 5000 - 6000
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LEGEND

	MAGNETIC CONTOUR
	MAGNETIC CONTROL STATION
	CLAIM POST LOCATION AND CLAIM BOUNDARY
	PROPOSED DIAMOND DRILL HOLE

LINE OF AND CHANGED MAGNETIC READINGS OBSERVED AND PLOTTED ON EAST SIDE OF LINE GRID

0	2000
5000	5000
10000	10000
15000	15000
20000	20000
25000	25000
30000	30000
35000	35000
40000	40000
45000	45000
50000	UP

