



Report on Geophysical Electromagnetic
And Magnetometer Surveys
Midrim Mining Company Limited
16 Claim Group (Lots 5 & 6 Conc. 2)
Currie Township, Larder Lake
Mining Division, Ontario.

1. INTRODUCTION

This is a report describing the results of combined geophysical electromagnetic and magnetometer surveys carried out by Midrim Mining Company Limited on a contiguous group of 16 unpatented mining claims, staked by the Company in Currie Township, Matheson area, Ontario.

The line cutting was done during the period from April 27, 1966 to May 6, 1966. The Electromagnetic and Magnetometer Surveys were done from October 15, 1966 to October 31, 1966.

The information is plotted on the accompanying plan dated November, 1966.

2. CONCLUSIONS AND RECOMMENDATIONS

In view of the fact that wide anomalous E.M. readings were recorded with Crone horizontal loop in line method also that the magnetometer survey delineated a north-south intrusive structure, it is recommended that further Crone E.M. check survey with low frequency and vertical loop be done in the areas of the high negatives and especially in the intrusive area in claim L 95744 and vicinity.

3. PROPERTY, LOCATION AND ACCESS

The property consists of 16 contiguous unpatented mining claims, numbered as follows:

L 95730 to L 95745 inclusive.

These claims comprise lots 5 & 6, concession 2, and are located in the southern middle part of Currie Township, Larder Lake Mining Division, Ontario.

Access was readily made from Matheson to a point 8 miles west on Highway No. 101, then south 3 miles on a farm road, then 3 more miles to the east and south to the centre of the property.

4. GENERAL GEOLOGY

O.D.M. Map No. 40b indicates that over 85% of the property is covered with clay and sand overburden.

The property is at the north foothills of two mountains, the Merriman mountain and Pinero mountain which are 400 feet and 200 feet above the surrounding country. The property is drained to the east by Watabeag river and to the west by Grindstone creek which flows northwest into Driftwood river. Both Watabeag and Driftwood rivers flow northward into the Black river.

The property is favourably located at about one mile to the north of an Algonian granite batholith. The peaks of the two mountains mentioned above consist of granitic rocks intruded by diabase dykes and they are near the **contact** of the granite batholith and the Keewatin basic and intermediate volcanic rocks.

In the south middle part of the property, rhyolite fragments, pillow lava, diorite and gabbro-diabase are reported seen during the survey. In the O.D.M. Fortieth Annual Report of 1931, H.C. Laird infers that this area has been intruded successively by rocks of Haileyburian, Algonian and Keweenawan age. These intrusives would be favourable for gold and base metal mineralization.

In the same above mentioned report, it is stated that handpicked silicified specimens have yielded \$4.17 in gold per ton (old price), also small quantities of zinc blende, malachite and chalcopryrite are associated with fine iron sulphides in the sheared zones of the Keewatin lavas.

5. GEOPHYSICAL RESULTS

Wide anomalous E.M. high frequency readings up to -9 were recorded in the northwestern part of the property in the area of clay beds. Low frequency and vertical loop

additional E.M. Survey would be required to check and to determine the reason of these anomalous readings and what is below the clay beds.

Two sets of -3 were recorded in the outcrop area at the south middle part of the property. These would also have to be checked as above before any further development could be undertaken.

The magnetometer survey indicates east-west trending structures of 500 to 3000 gammas which are inferred as mainly Keewatin intermediate and basic volcanic rocks. A north-south striking structure of higher magnetics of 4,000 to 5,000 gammas cut the south middle part of the above structure. Also four di-polar magnetic effects are noted associated with this structure. One of these at L30E, 12S, due to high intensity, could be iron formation. The others are probably caused by magnetite associated with basic intrusion.

6. GEOPHYSICAL EQUIPMENT AND METHODS

A Crone J.E.M. electromagnetic dual frequency, 12 volt, unit was used for the survey. This instrument has a high frequency of 1,800 c.p.s. and a low frequency of 480 c.p.s. The unit is a two-man operated instrument, each with transmitter-receiver to cancel elevation effects.

High frequency horizontal loop, in line method was used for the survey. That is, both operators are on the same traverse line at 300 feet apart, facing opposite directions at right angles to the line. They transmit and receive in turn, reading the dip angles. The algebraic sum of the two readings is recorded on the station half way between the operators.

The magnetometer survey was done with the new electronic McPhar M-500A Fluxgate Magnetometer. This instrument measures vertical magnetic intensities directly in gammas. It is self-levelling, and a self-cancelling circuit permits rapid, accurate measurements without calculations. Maximum sensitivity is 20 gammas per scale division on the 1,000 gamma range.

Base line control loop method was used for the survey. Station 24E on the Base Line was taken as the magnetic base station with instrument set at arbitrary base 500 gammas. A suitable day of mild magnetic fluctuations was chosen to establish 17 base control stations on the Base Line from 0 to 4,800 feet east, at 300 foot intervals. The traverse lines were run by loop method and only very slight diurnal corrections were necessary.

7. SURVEY DATA

A due E-W Base Line was cut and chained across the middle part of the property for a distance of 4,800 feet. Seventeen traverse lines were turned due north and south, at right angles to the Base Line to cover the property.

The total mileage of the lines cut and chained, including Base Line is 17.4 miles.

The total mileage of the electromagnetic survey is 16 miles with 810 readings and magnetometer survey 6 miles with 857 observations.

The number of eight hour man-days required to complete the survey was as follows:-

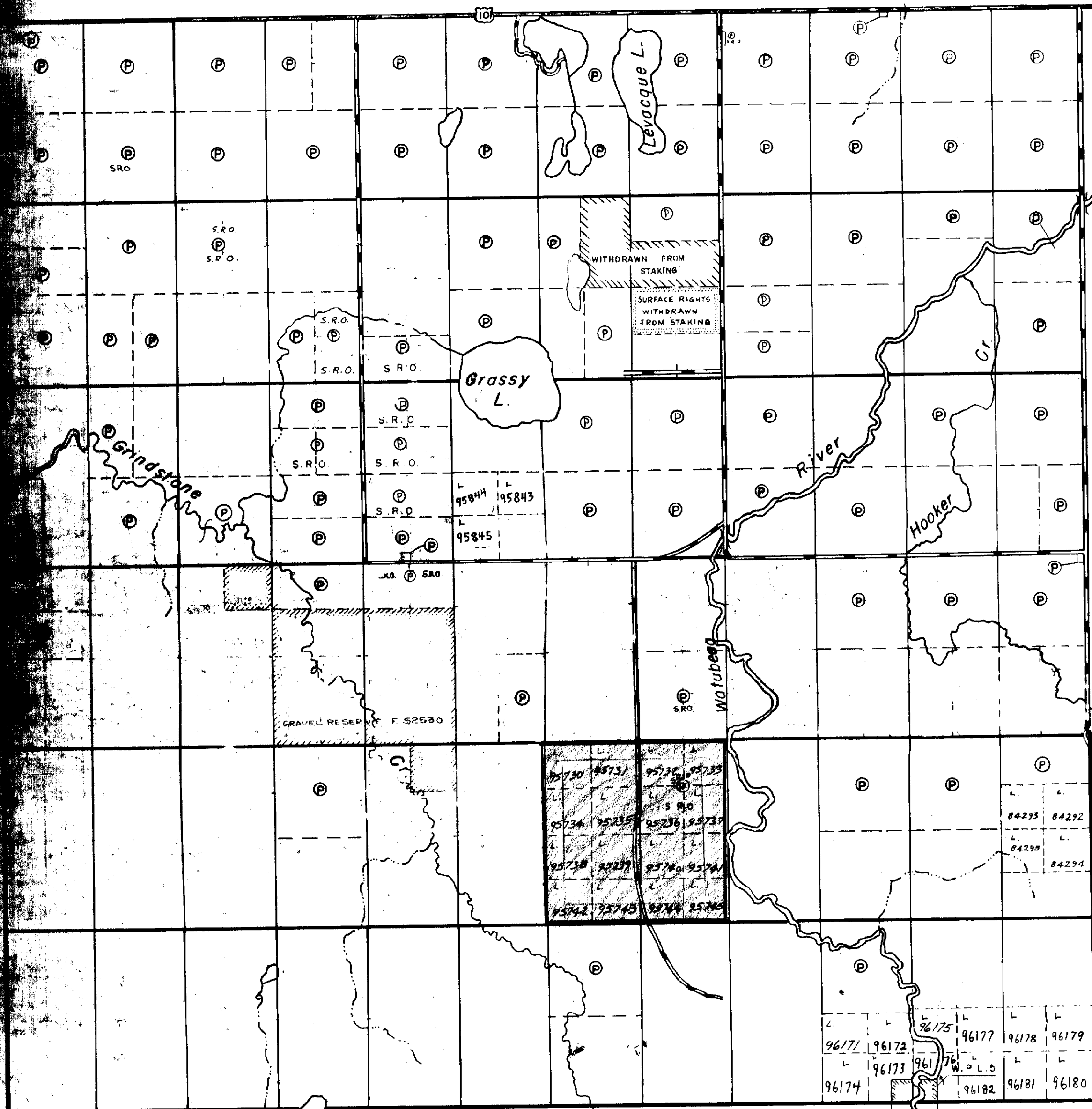
	<u>8-hour Man-days</u>	<u>Attributable to Assessment Work</u>
line-cutting and chaining	40	40
Operating Geophysical Survey	34 x 7	238
Consulting	3 x 7	21
Typing	1 x 7	7
Drafting	3 x 7	<u>21</u>
		327
		<hr/>

Respectfully submitted,
MIDRIM MINING COMPANY LIMITED,

Stan Guimond

Stan Guimond, B.Sc.,
Geologist.

Taylor Twp.



Bowman Twp.

THE TOWNSHIP OF

CURRIE

DISTRICT OF COCHRANE

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- PATENTED LAND P
- CROWN LAND SALE S or CS
- LEASES L
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES

NOTES

AREA MARKED THUS
 Files 11593, 21312
 WITHDRAWN FROM STAKING UNDER SEC. 39 (1) OF MINING ACT

400' Surface rights reservation around all lakes and rivers.

AREA MARKED THUS
 GRAVEL RESERVE FILE 5-52530, 41265, 50665, 7463, 42536, 10667

DATE OF ISSUE
 APR 20 1967
 ONTARIO DEPT. OF MINES

PLAN NO.- M.341

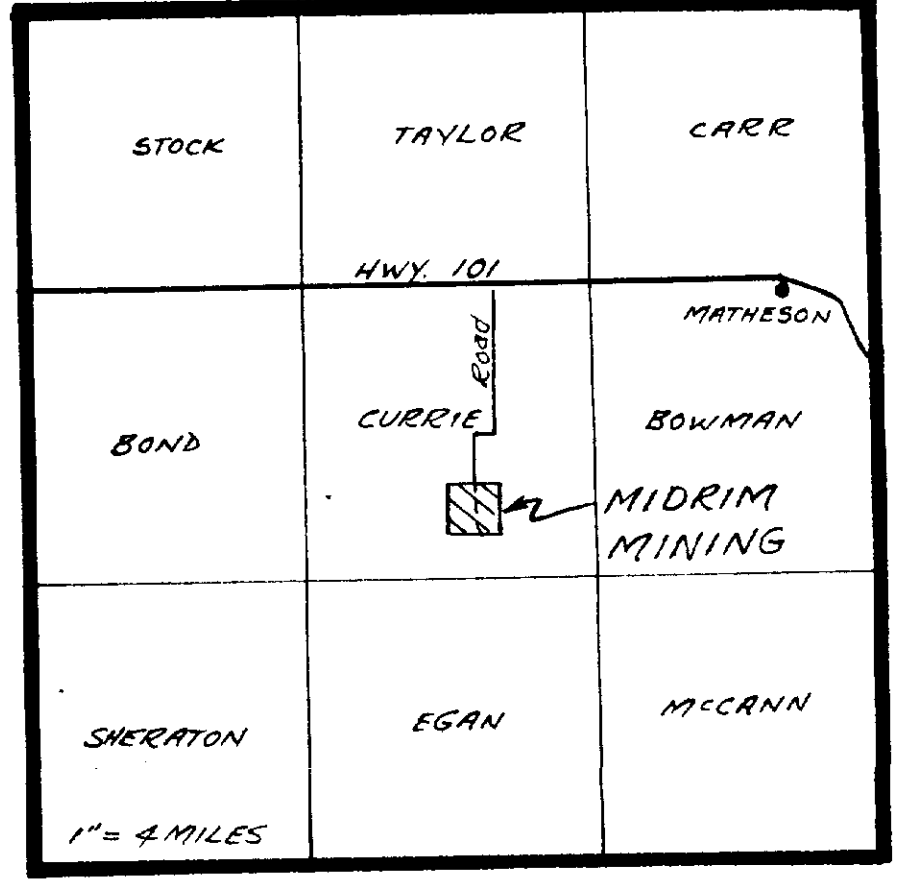
DEPARTMENT OF MINES
— ONTARIO —



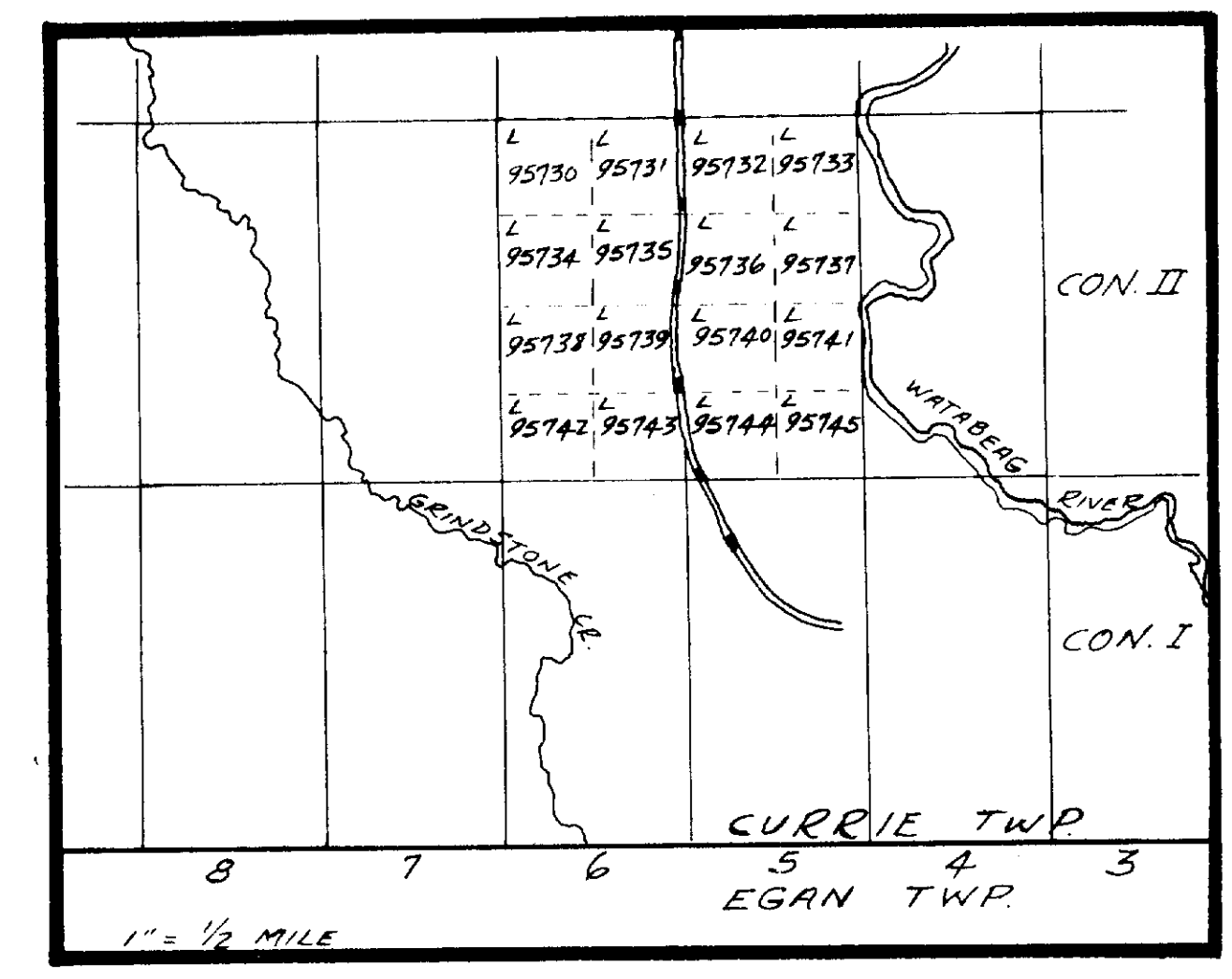


LEGEND

- PICKET LINES CUT & CHAINED
- E.M. READINGS PLOTTED ON RIGHT SIDE OF LINE in degrees
- MAG. " " " LEFT " " " in degrees.
- CLAIM LINE & POST
- TRAIL
- FIELD
- OUTCROP
- SWAMP OR MARSH
- ROAD
- ⊙ BASE CONTROL STATION
- CONTROL STATION



LOCATION PLAN



MIDRIM MINING COMPANY LIMITED

16 CLAIM GROUP
 CURRIE TWP.
 LARDER LAKE MINING DIVISION - ONTARIO
E.M. & MAGNETOMETER SURVEY

SCALE 1" = 200'

NOV. 1966

S. Guimond