# REPORT

# ON THE

# GEOPHYSICAL SURVEYS

# NORTH GROUP, BARTLETT & GEIKIE TOWNSHIPS

# TEXMONT MINES LIMITED

# TEXMONT NICKEL AREA

# PORCUPINE MINING DIVISION, ONTARIO

## I INTRODUCTION

Texmont Mines Limited have under their control a group of 20 claims lying at the north extremity of a common township boundary of Bartlett and Geikie Townships, and surrounding the Texmont mine property on the north and east sides. During the months of September and October 1965 magnetic and electromagnetic surveys were carried out on this group of claims. The results of this work are reported here.

## II PROPERTY, LOCATION & ACCESS

The property consists of 20 contiguous unpatented mining claims as follows:

P.77842 - P.77853 inclusive (12 claims)

P.77745 - P.77752 inclusive ( 8 claims)

These are located in the northeast and northwest corners of Bartlett and Geikie Townships respectively. This property lies on the north and east boundaries of the Texmont mine property.

Access to the property was by secondary roads, south from Timmins, approximately 25 miles to the centre of Bartlett Township, and then east northeast to the mine property. This road provides good access to the property during most of the months of the year.

## III GENERAL GEOLOGY

The rocks in the area are a Keewatin type volcanics and vary in composition from acid to basic. Interbedded with these volcanics are minor tuffacious rocks and sedimentary gneisses. A major portion of the area is believed to be intruded by ultrabasic rocks of gabbroic and dioritic composition. The geological strike in the area is generally north - south.

## IV GEOPHYSICAL SURVEYS

A north - south baseline was run through the centre of the eastern group of claims and the Bartlett - Geikie Township line was cut out and used as a secondary baseline. East - west traverse lines were cut at intervals of 300' along these baselines.

Magnetic survey results were obtained by traversing these lines and following this horizontal loop surveys were conducted over the same lines. In the northwestern corner three vertical loop set-ups were carried out to confirm H.E.M. conductors that occurred in low swampy depressions.

Magnetic Survey

A magnetic survey was carried out with a fluxgate magnetometer taking readings at 50' intervals along the traverse lines and at 50' or 100' intervals along the base and tie lines. The arbitrary level for the survey was tied into the base control station marked on baseline 'B' at approximately 3500' west on Line 57 North. This station is shown with a circle with a solid dot in the centre. The control for the balance of the survey was carried along as the survey progressed and they are marked at open circles at the terminus of the traverse lines with the baseline.

Generally speaking the magnetic anomalies are erratically high and low and therefore contour intervals of 0, 1000, 2000, 4000 and 10,000 gammas were employed to interpret the survey results.

The results are presented on two sheets on a scale of 200' = 1".

SCOPE

Sheet 2

There are several prominent magnetic features on this sheet, the first being a broad zone four to six hundred feet wide, extending from Line 10 W on Line 0 (Baseline 'B'), northwest to 25 + 00 W, Line 27 N (Baseline 'B'). This feature may represent an ultrabasic intrusive complex lying near surface. The strike of this feature appears to cut across the regional anomalies in this area. Another broad feature is centred on Line 72 N, from 20 + 00 W to 10 + 00 E. This area has six or eight marked magnetic lows and highs, somewhat similar to the first zone described although the depth of burial appears greater.

Sheet 1

The magnetic features on Sheet 1 are somewhat in contrast to those of Sheet 2 in that the entire sheet appears to be covered by small magnetic closures both highs and lows with the exception of the southwest corner of the sheet these features are sharp and of greater amptitude. None of the features warrant specific comment on the basis of their magnetic character alone.

SCOPE

Electromagnetic Survey

Horizontal loop surveys were carried out on all the traverse lines employing a 200' transmitter receiver separation, and recording amptitude and phase components of the signal. These are plotted in profile form on the line, the amptitude a solid line, and the phase component, a broken line.

Conductive zones are indicated by solid bars on the traverse line and interpreted strike of these features are shown by lighter connecting lines. These zones are discussed in detail as follows:

Sheet 2

Zone A - Zone A extends from Line 12 N (Baseline 'B') at 6 + 25 W to Line 0 at 8 + 25 W and very likely continues off the claim group. Since this feature lies in the depression of the creek, a vertical loop set-up was made on Line 6 N and confirmed the presence of this zone. Extending it perhaps as far as Line 18 N. This zone is of fair conductivity, and should be drilled at its intersection with the magnetic feature in the areas of Line 0 or Line 3 N.

Zone B - Zone B occurs in the flooded portion of the creek and was located on Lines 24 and 27 North. Little

was known from the horizontal loop survey because of the flooding and subsequent vertical loop work confirmed the presence of this conductor. A 1000 gamma magnetic anomaly is coincident with this zone and consideration should be given to drilling these coincident features on either line.

Zone C - Zone C extends from Line 27 N to Line 12 N. The zone appears to have banding or possible width of 100'. It is recommended that the zone be tested.

Zone D - Zone D showed on the horizontal loop survey as a very weak conductive zone striking northeast from Line 72 N to Line 60 N (Baseline 'A'). Subsequent detailed work with the vertical loop confirmed this conductor in its location, and that it was a very weak feature. This is no marked magnetic correlation with Zone D.

Several small conductive zones occur in the eastern portion of Sheet 2 at the present time are not of significance, but if geological information makes this area attractive these zones would present worthwhile drill targets.

SCOPE

Sheet 1

Zone E & Zone F - Two conductive zones were located on sheet 1. Their physical properties suggest that they are no more attractive than the unlabelled zones of Sheet 2, but consideration should be given to these zones if geologic conditions make this area attractive. These zones appear to strike parallel to the magnetic contours in the immediate area.

## V CONCLUSIONS & RECOMMENDATIONS

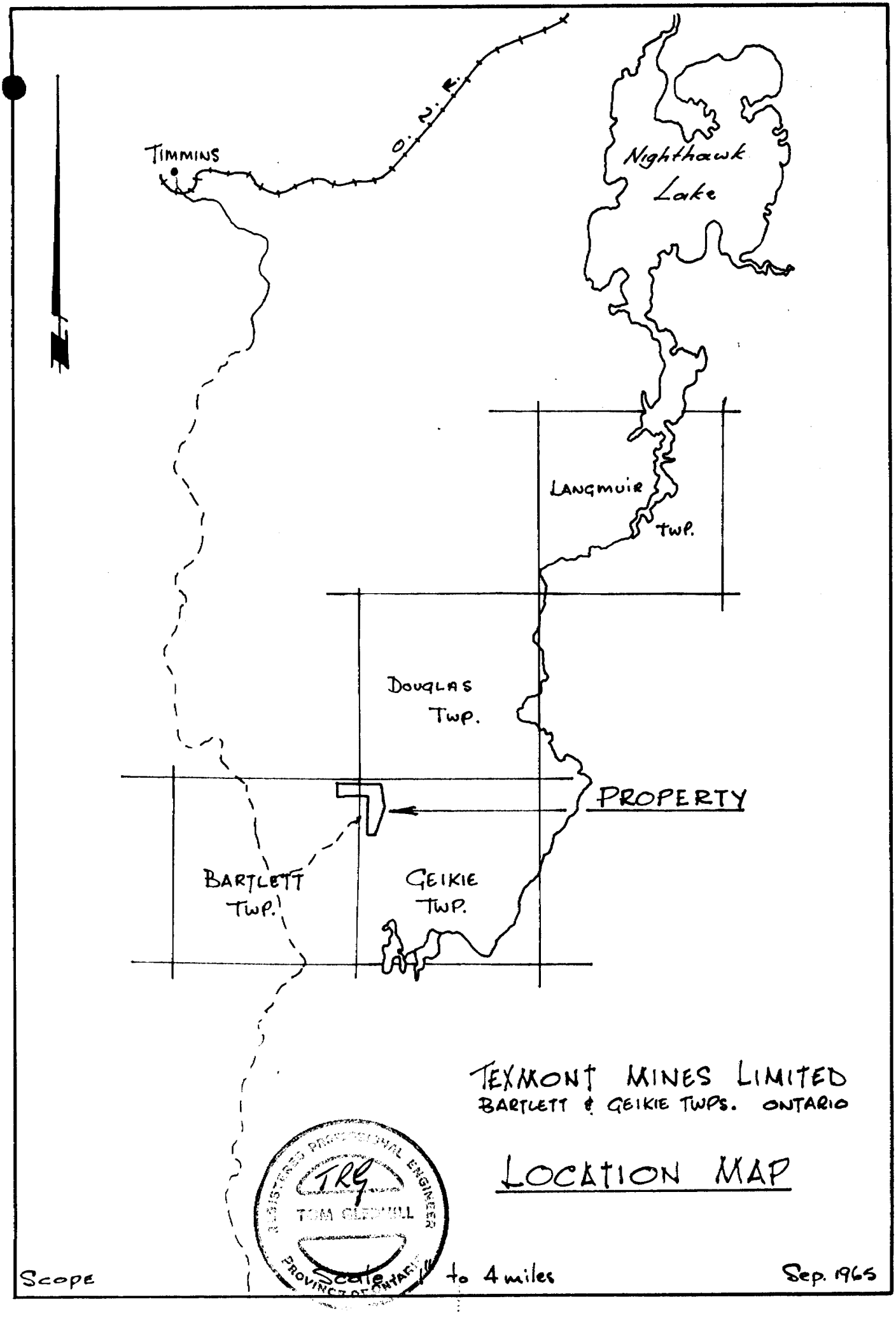
The magnetic survey of the property outlined two zones containing features of moderate magnetic relief, indicating possible ultrabasic intrusives. Subsequent electromagnetic surveys located six conductive zones, three of which warrant diamond drilling. The remaining three should be tested subject to attractive geologic environment.

It is recommended that Zones A, B, and C be diamond drilled.

Respectfully submitted,

SCOPE MINING & EXPLORATION CONSULTANTS LIMITED


Tom Gledhill, P.Eng., Geophysicist.

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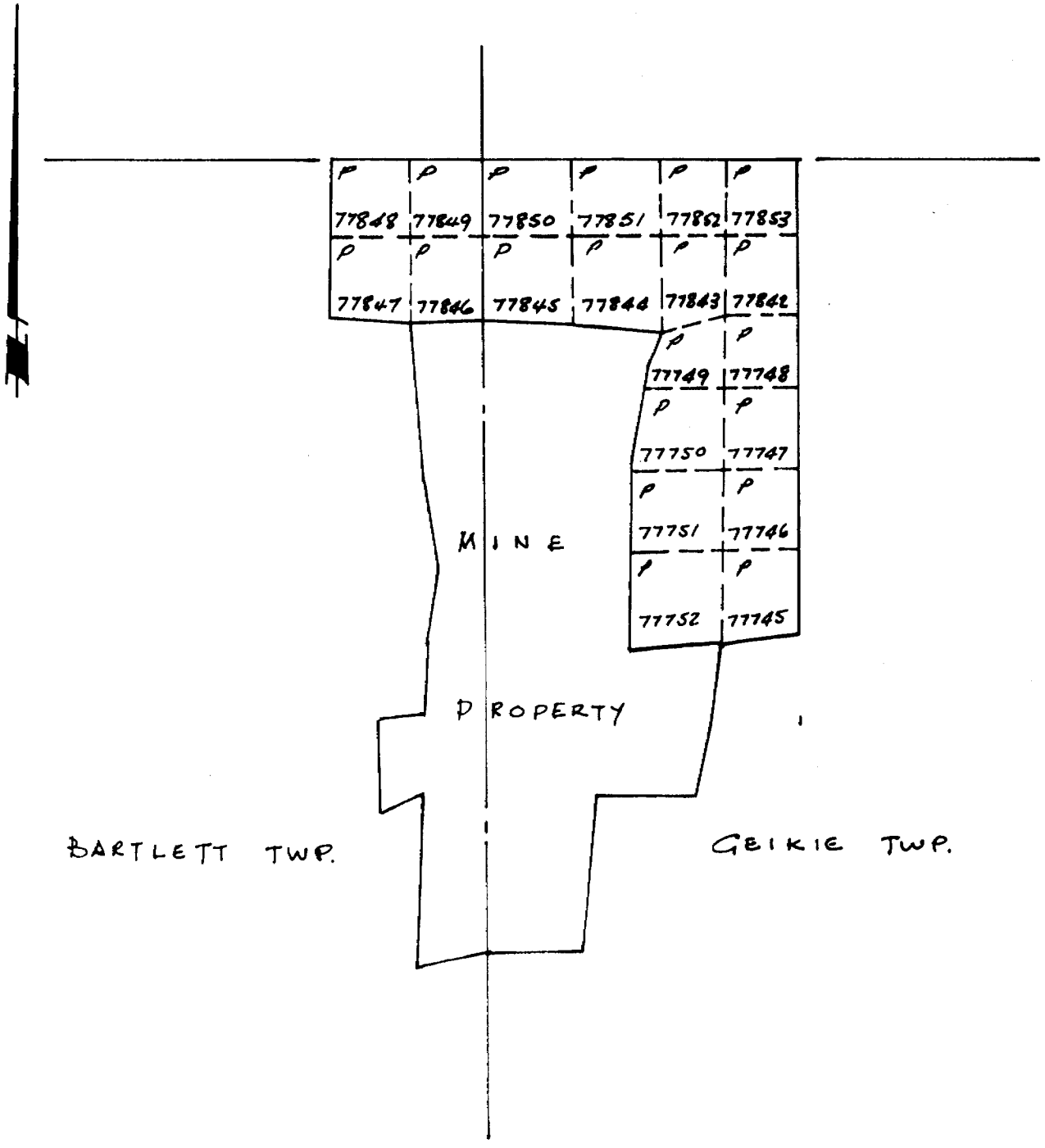
BARTLETT & GEIKIE TWPS. ONTARIO

# LOCATION MAP

REGISTERED PROFESSIONAL ENGINEER
TRG
TOM GLEDHILL
PROVINCE OF ONTARIO

Scope Scale 1" to 4 miles Sep. 1965

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# CLAIMS PLAN

REGISTERED PROFESSIONAL ENGINEER
TRG
TOM GLEDHILL
PROVINCE OF ONTARIO

Scope

Scale: 1" to 2640'

Sep. 1965

Baseline on Sheet 2 ties here

57N
54N
51N
48N
45N
42N
39N
36N
33N
30N
27N
24N
21N
18N
15N
12N
9N
6N
3N
Line 0+00

77749
77748
77750
77747
77751
77746
77752
77745

Zone 'E'
Zone 'F'

N.L.

10W

Baseline

10E

## LEGEND

Amplitude scale units 200 150 100 50 0

Phase Profile

Amplitude Profile

DETAILS OF H.E.M. PROFILES.

0 50 100 150 200 units. Phase scale

- Control Station
- Claim Post - Located
- Claim Post - Assumed
- E.M. Anomaly

SHEET INDEX

2
1

TEXMONT MINES LIMITED
BARTLETT & GEIKIE TWPS. ONTARIO

# HORIZONTAL E.M. SURVEY

SCALE: 1" to 200'

September 1965

SHEET 1

TRG
TOM GLEDHILL
10/11/65

57N
54N
51N
48N
45N
42N
39N
36N
33N
30N
27N
24N
21N
18N
15N
12N
9N
6N
3N
Line 0+00

10 W

10 E

Baseline

77749
77748
77750
77747
77751
77746
77752
77745

1000
2000
4000



LEGEND.

360
270 — Picket Line Reading in Gammas.
1120
1080

1000 — Isomagnetic Contour

○ Control Station

■ Claim Post - Located
□ Claim Post - Assumed




SHEET INDEX

TEXMONT MINES LIMITED
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# MAGNETOMETER SURVEY

SCALE: 1" to 200'

September 1965

REGISTERED PROFESSIONAL ENGINEER
TOM GLENDELL
10/11/65
PROVINCE OF ONTARIO

SHEET 1

20 W | 10 W | Baseline B | 30W | 20W | 10 W | Baseline A | 10 E

Dam

27N | 24N | 21N | 18N | 15N | 12N | 9N | 6N | 3N | Line 0 | Pond

84N | 81N | 78N | 75N | 72N | 69N | 66N | 63N | 60N | 57N

Zone 'C'

Zone 'B'

Zone 'A'

Zone 'D'

Zone 'E'

Flooded

Flooded

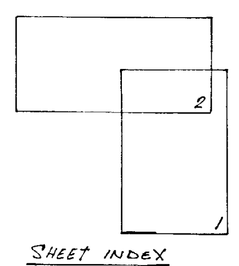
Creek

Creek

77847 | 77846 | 77848 | 77849 | 77850 | 77851 | 77852 | 77853 | 77844 | 77845 | 77843 | 77842

BARTLETT TWP
GEIKIE TWP

SHEET INDEX




LEGEND

Amplitude scale units are 10 to a

Phase Profile | Amplitude Profile — DETAILS OF H.E.M. PROFILES

0 20 40 60 80 100 Phase scale

- Control Station
- Claim Post - Located
- Claim Post - Assumed
- E.M. Anomaly

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# HORIZONTAL E.M. SURVEY

SCALE: 1" to 200'

September 1965

SHEET 2

Baseline A

Baseline B

77848

77849

77850

77851

77852

77853

77847

77846

77845

77844

77843

77842

Creek

Road

Line 0

BARTLETT TWP.

GEIKIE TWP.

SHEET INDEX

1

2

LEGEND

- 86+ / 270 / 1120 / 1980 — Picket Line Reading in Gammas.
- 1000 — Isomagnetic Contour
- Control Station
- Claim Post - Located
- Claim Post - Assumed

Baseline on Sheet 1 ties here.

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# MAGNETOMETER SURVEY

SCALE: 1" to 200'

September 1965

SHEET 2

Zone 'C'

Zone 'B'

Flooded

Zone 'A'

Zone 'D'

Zone T-2

Flooded

Creek

77848

77849

77850

77851

77847

77846

77845

77844

T-3

T-1

BARTLETT TWP.

GEIKIE TWP.

## LEGEND

E.M. PROFILES.

1000 c.p.s.

5000 c.p.s.

E.M. CROSSOVER - STRONG } 1000 c.p.s.
E.M. CROSSOVER - WEAK }

E.M. CROSSOVER - STRONG } 5000 c.p.s.
E.M. CROSSOVER - WEAK }

△T-2 TRANSMITTER LOCATION

AREA OF V.E.M. COVERAGE

SHEET INDEX

2

1

TEXMONT MINES LIMITED

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# VERTICAL E.M. SURVEY

SCALE: 1" to 200'

September 1965

TOM C. LEDHILL

PROFESSIONAL ENGINEER

PROVINCE OF ONTARIO