



42A01SE0217 63.1359 EBY

010

ABSTRACT

In the fall of 1964 a ground magnetic survey was completed over part of an airborne magnetic survey in Eby Township, Ontario.

The values were obtained along picket lines spaced 300 feet apart at 50 foot intervals in the anomaly area.

Three profiles were chosen for detailed interpretation along which individual magnetite bands were investigated for widths and percentage magnetite.

The results are described in a three (3) page report with three (3) bound in profiles and an accompanying map on a scale of 1 inch equals 200 feet.

Drawing 2827.

GROUND MAGNETIC SURVEY

EBY TOWNSHIP, ONTARIO

INTRODUCTION

The survey was carried out to detail part of a magnetic anomaly which had been delineated by an aeromagnetic survey in 1962.

LOCATION AND ACCESS

The previously outlined anomaly was located in Eby Township. It's long axis is approximately E-W and extended almost across the township, slightly south of it's centre line.

Most of the anomaly is easily reached by farm or logging roads from Highway 11.

GEOPHYSICAL SURVEY

The survey was completed along N-S lines spaced 300 feet apart, from lines 7 to 17 of the aeromagnetic survey. (G.E. & S.L. report 383T and Dwg. 2414). The determinations were made at 50 foot intervals in the anomaly area and at 100 foot intervals beyond the anomaly.

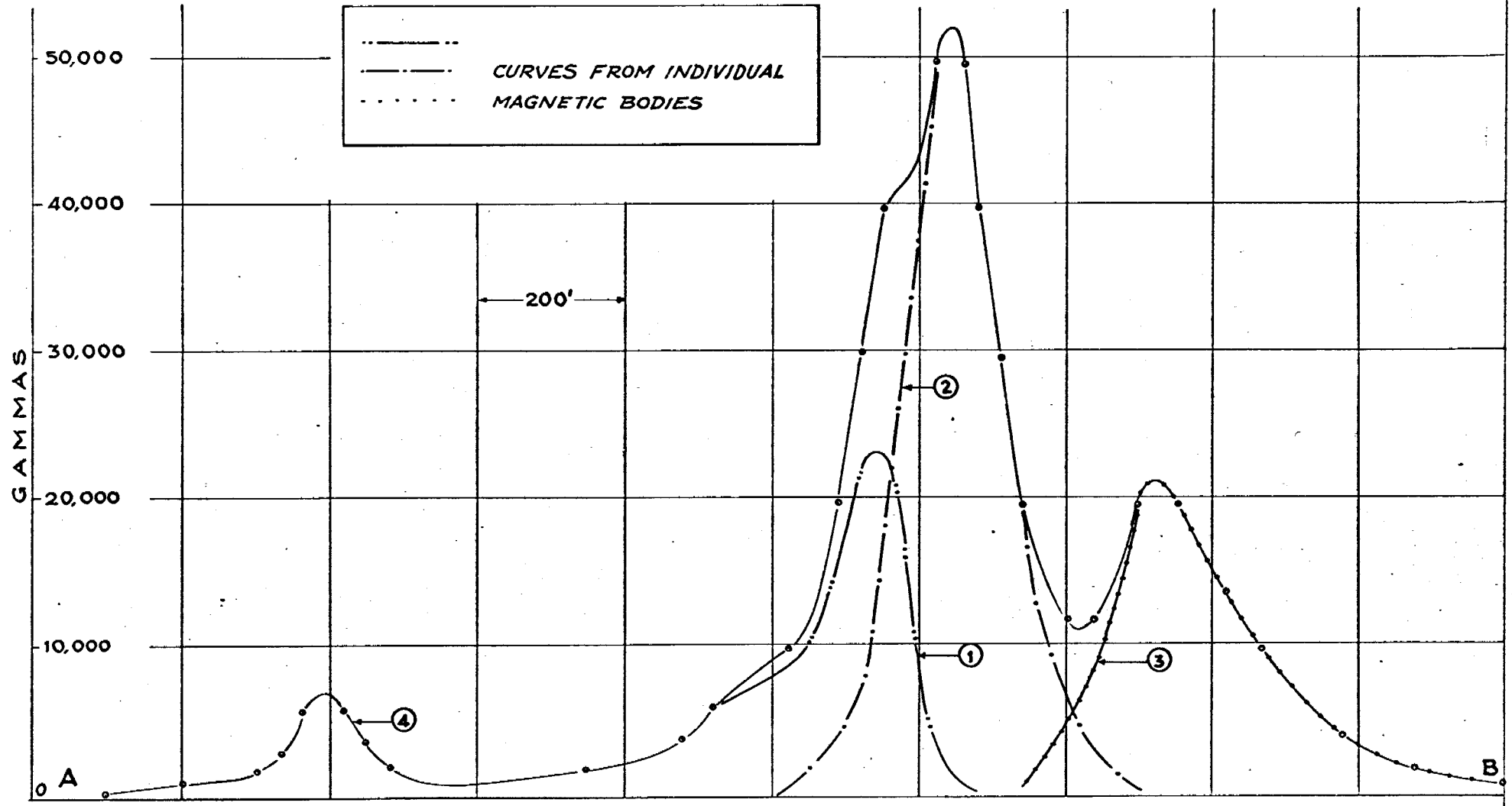
The results were plotted on a map of scale 1 inch equals 200 feet and contoured. (Dwg. 2827)

INTERPRETATION

Three profiles AB, CD, EF across the most interesting parts of the anomaly were used. Each profile indicated that the magnetic body was made up of several

bands of varying percentages of magnetite. Each profile is discussed separately.

PROFILE 'AB'



PROFILE A & B

	Anomaly 1	Anomaly 2	Anomaly 3	Anomaly 4
Width	20 ft.	25	40	40
Depth	35 ft.	45	40	40
V	24,000	52,000	21,000	7,000
V _o	65,000	65,000	65,000	65,000
K	0.68	1.54	.36	.12
%	42.0	96	22	8

V = Peak anomaly value in gammas

V_o = Earth's magnetic field in gammas

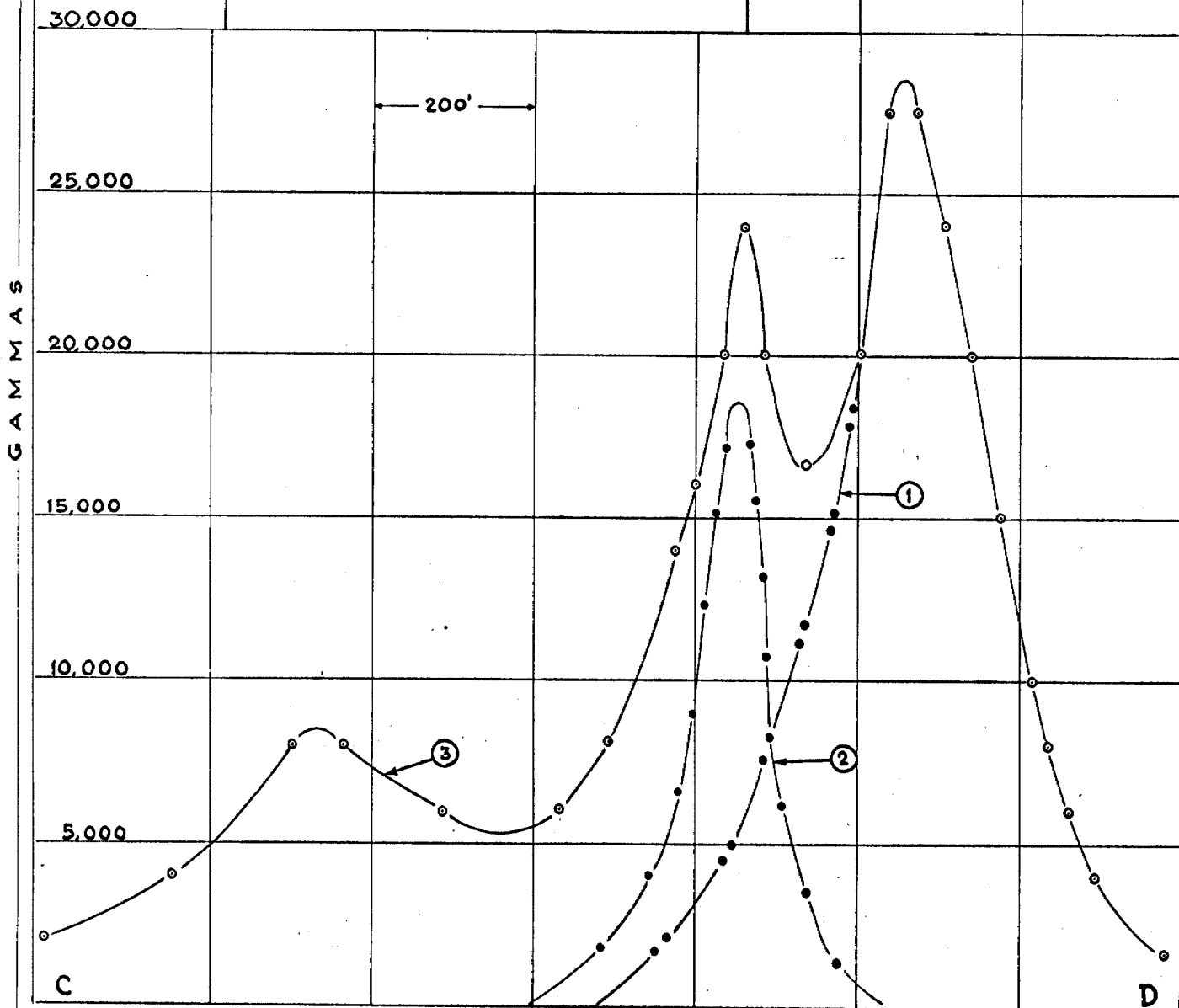
K = Calculated magnetic susceptibility

% = Percent magnetite estimated from susceptibility

The main anomaly is made up of three main components of total width 450 feet. A profile using the values from a previous airborne survey show that at the flight elevation of 500 feet the individual magnetite bands are not resolved. The magnetic body appears to be 375 feet wide with an average of 14 percent magnetite..

PROFILE 'CD'

..... CURVES FROM INDIVIDUAL
MAGNETIC BODIES



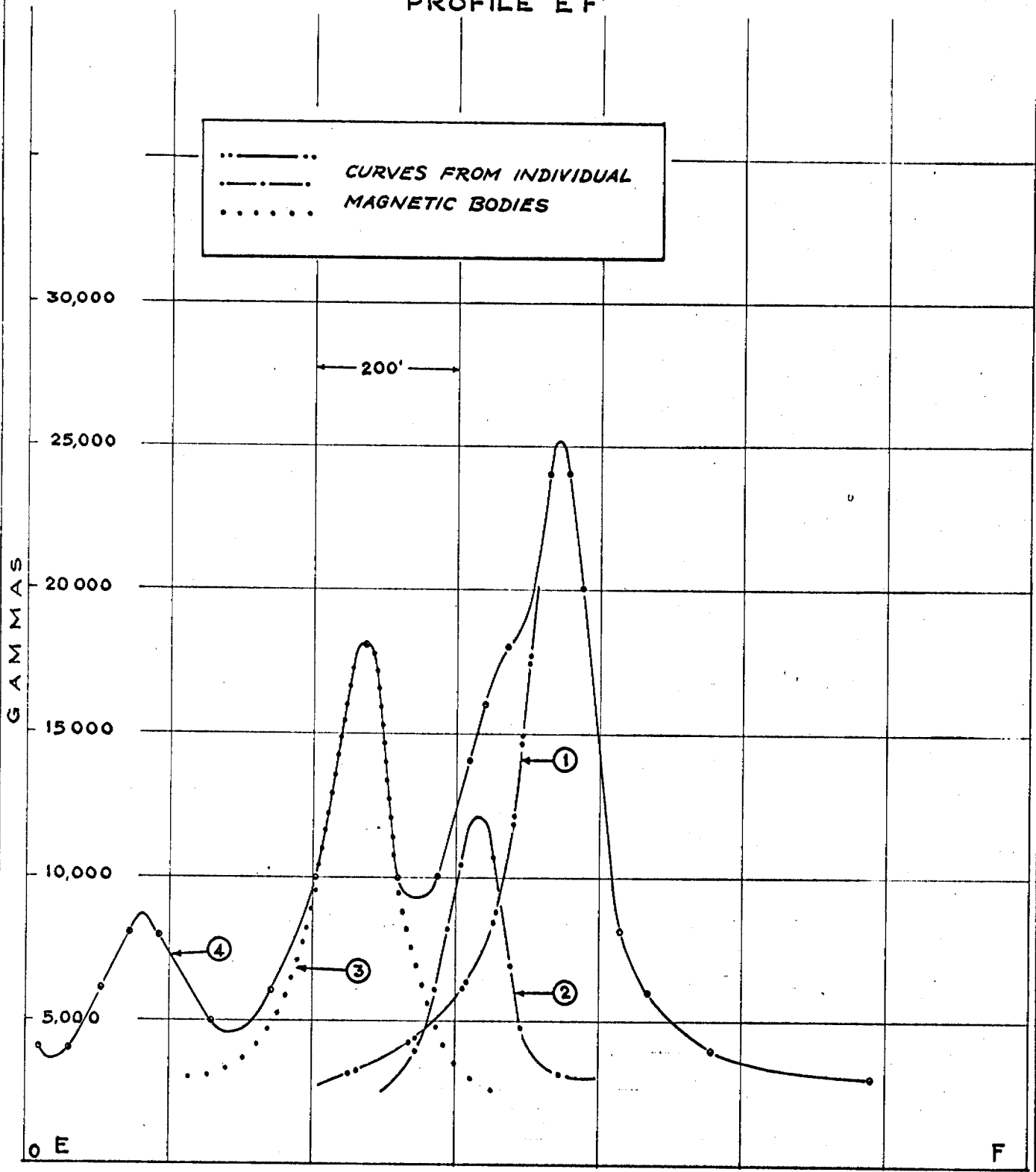
PROFILE C - D

	Anomaly 1	Anomaly 2	Anomaly 3
Width	40	10	40
Depth	40	35	80
V	28,500	18,500	8,500
Vo	65,000	65,000	65,000
K	0.47	0.92	0.28
%	29	57	17

The main anomaly is made up of two components which are not resolved in the previous airborne survey. The total width from the ground survey was 260 feet as compared to 300 from airborne results.

The airborne profile indicated an average percentage magnetite of 13.

PROFILE 'E F'



PROFILE E - F

	Anomaly 1	Anomaly 2	Anomaly 3	Anomaly 4
Width	10	20	15	40
Depth	35	30	40	60
V	22,000	9,000	15,000	5,500
Vo	65,000	65,000	65,000	65,000
K	0.85	0.23	0.64	0.14
%	53	14	40	9

The main anomaly is made up of three components. The total width across the three bands is 320 feet as compared to 400 from the airborne data. The average percentage from the airborne results is found to be 12.

CONCLUSIONS AND RECOMMENDATIONS


The airborne results indicate total widths of magnetic material which are slightly less than the width across the combined magnetic bands. The average percentage is much lower as would be expected - however the combined widths times percent of the individual bands is much less than the total width times the average percentage from airborne results.

The detailed survey would indicate considerably less tonnage than the airborne results.

A cross section along Profile AB should be drilled to determine how close to reality the percentage determinations are and to assist in estimating tonnages.

Respectfully submitted,

GEOPHYSICAL ENGINEERING & SURVEYS LIMITED,


A. R. Clark.

Toronto, Ontario,
December 11, 1964.



Assessment Work Breakdown

- 1. Type of Survey Magnetometer.
- 2. Township or Area Eby.
- 3. Mining claim numbers L-77348, 77349, 78187, 78188, 78189, 78190, 78487, 78788,
78789, 79120.
- 4. Number of miles of line cut 11.75.
- * 5. Type of instrument used E.J. Sharpe, Model MF-1 Fluxgate (Two Used)
- * 6. Scale constant or sensitivity ± 10 gammas on 1000 gamma scale.
- * 7. Number of stations established Base Stations - 6 ; Regular Stations - 769

8. Summary of days worked (details on reverse side)

Total technical (include consultants, draughting etc.)	<u>27 1/2 days X 7</u>	<u>192.5</u>
Total line-cutting	<u>44 days</u>	<u>44.</u>
Total man-days (technical plus line-cutting)		<u>236.5</u>
Assessment days credit per claim		<u>23.6</u>

9. Dated Dec. 11, 1964. Signed J. C. Frantz.

* Complete only if applicable

Complete list of names, addresses and dates on reverse side

Use for one type of survey only

Assessment Work Breakdown

1. Technical

<u>Type of Work</u>	<u>Name & Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Operator	A. MacDonnell, Timmins	6-8 Nov. 64.		3
"	A. Clemens, Timmins	6-8 Nov. 64.		3
Helper	G. Riddler, Timmins	6-8 Nov. 64.		3
Surveying	G. Loach, Kirkland Lake.	21-22 Oct. 64.		2
"	D. Dekker, Kirkland Lake.	21-22 Oct. 64.		2½
"	K. Griffin, Kirkland Lake.	21-22, 31 Oct. 64.		2
Totals				15½

Consultants

<u>Name & Address</u>	<u>Dates Worked (specify in field or office)</u>	<u>Hours</u>	<u>Days</u>
J.C. Frantz, Toronto.	4 Dec. 1964 (office)		1
A.R. Clark, Toronto.	7-10 Dec. 1964. (office)		4
Totals			5

Draughtsman, Typing, others (specify)

<u>Name & Address</u>	<u>Type of Work</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
R. Woolham, Timmins	Calculating, drafting and Contour work sheet.	9-10 Nov. 1964.		2
E. Janiec, Toronto	Final Drafting and Contour	18-20 Nov. 1964. 9-10 Dec. 1964.		2½ 2
E. Pennylegion, Toronto	Typing report.	11 Dec. 1964.		½
Totals				7

2. Line-Cutting

<u>Name</u>	<u>Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
J. Merhar,	Kirkland Lake, Ontario.	21-22 Oct. 1964.		2
A. David,	Kirkland Lake, Ontario.	21-22 Oct. 1964.		2
J. Whelan,	Kirkland Lake, Ontario.	24 Oct. - Nov. 1, 1964. Incl.		10
W. Arsenault,	Kirkland Lake, Ontario.	24 Oct. - Nov. 1, 1964. Incl.		10
C. Gilmour,	Kirkland Lake, Ontario.	24 Oct. - Nov. 1, 1964. Incl.		10
M. Sullivan,	Kirkland Lake, Ontario.	24 Oct. - Nov. 1, 1964. Incl.		10
Totals				44

MAGNETOMETER SURVEY
 OF PART OF
EBY TWP PROPERTY
 EBY TWP, ONTARIO
 FOR
KEEVIL CONSULTANTS LIMITED
 BY
GEOPHYSICAL ENGINEERING & SURVEYS LTD

SCALE: 1 inch = 200 feet

NOTE:
 Values are in gammas.
 Contour interval 2000 gammas.
 Heavier contours every 10,000 gammas.

