

2.2102

PROSPECTING GEOPHYSICS LTD.



32E04NW0003 2.2102 SINGER

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REPORT
ON
GEOPHYSICAL SURVEYS
PROJECT 101C
FOR
DOMEXPLORATION (CANADA) LTD.
ABBOTSFORD, SINGER & CASE TOWNSHIPS., ONT.

INTRODUCTION

Electromagnetic and magnetometer surveys were carried out over part of the property held by Dome Exploration (Canada) Ltd. in Abbotsford, Singer and Case townships of Ontario. This is referred to as Project 101C. The object of the ground surveys was to locate and delineate conductive zones for further investigation.

PROPERTY AND LOCATION

The property consists of 172 contiguous claims of approximately 40 acres each, situated in Abbotsford, Singer and Case townships, Larder Lake Mining Division, District of Cochrane, Ontario. The claims are registered with the Ontario Department of Mines under the following claim numbers, as shown on the accompanying maps.

Abbotsford Twp.

L 429502 to L 429517 inclusive
L 429622 to L 429640 "
L 429562 to L 429578 "
L 420942 to L 420980 "
L 420882 to L 420913 "
L 429579 to L 429594 "

Singer Twp.

L 429641 to L 429658 "
L 446038 to L 446041 "

Case Twp.

L 429518 to L 429528 "

The surveys covered only a portion of the entire claim block as shown on the Key maps.

Access is by road using the roads built by Abitibi Paper Company for hauling pulp wood.

GEOLOGY

The property is within a general east-west trending belt of volcanic and sedimentary rocks that extends across the Quebec-Ontario boundary. The belt of volcanics has been intruded by numerous granitic intrusives. The area included in Project 101C covers a narrow northwest band of volcanic and sedimentary rocks with granite bodies on either side. Portions of the granite-volcanic contacts are possibly within the property boundaries.

SURVEY METHODS AND INSTRUMENT DATA

The geophysical surveys were conducted over previously cut lines at 400 foot intervals. The electromagnetic survey was carried out using a Geonics EM-17 horizontal loop unit with a 300 foot coil interval.

In the horizontal loop type of survey both the in-phase and out-of-phase components of the secondary field are measured, whose special characteristics make possible a fairly accurate evaluation of the conductivity. A conductor caused by sulphide mineralization will produce a curve going from positive readings through zero to negative and back again to positive. Both the in-phase and out-of-phase readings show the same general curve. The ratio between the in-phase and out-of-phase readings over a conductor is an indication of the conductivity of the body. A good conductor would cause a greater deviation of the in-phase component than the out-of-phase component. The opposite is true of a poor conductor.

The magnetic readings were taken over the same network of lines using a G-816 Proton precession magnetometer manufactured by Geometrics Ltd. The instrument measures the total magnetic field intensity in gammas with an accuracy of 1 gamma. The total field as read in the survey was over 59,000 gammas and this amount was deducted prior to plotting the readings. Corrections were made

for diurnal variations and the corrected readings have been plotted on separate maps.

RESULTS OF THE GEOPHYSICAL SURVEYS

The results of the surveys are shown on three separate but adjoining sheets with the electromagnetic and magnetic readings on separate maps. The scale of the maps is 400 feet to the inch. The axes of the conductive zones are shown on both the electromagnetic and magnetic maps to aid in the interpretation.

The predominant feature of the geophysical surveys is a series of very strong conductive zones trending in a northwest direction across Sheet 1 and most of Sheet 2. The conductors follow a strong magnetic anomaly that extends across both sheets. The structure shown as "A" Zone on the maps is quite continuous with some possible faulting or folding at the west end. The conductors are discontinuous and are confined to a width of approximately 1,000 feet. The conductivity is generally very strong and from the intensity of the readings, overburden is very light and there should be a reasonable chance of outcrop. At the west end of Sheet 2 the conductor is referred to as "B" Zone but it appears to be along the same structure but has a more northerly strike. The dip throughout appears to be near vertical, possibly to the south.

The conductivity is not directly related to the high magnetic readings but appears to be on the flanks of the magnetic highs. The magnetic highs and lows are probably due to magnetite, possibly banded iron formation. The conductors associated with it no doubt represent graphite and/or sulphides.

There are other isolated conductors to the north of the main structure on Sheet 1 referred to as C, D, E, and F zones. "C" zone has a length of some 2,500 feet and has some above normal magnetic values associated with it suggesting the presence of sulphides. "D" Zone has a minimum length of about 4,500 feet and likewise has a weak magnetic anomaly associated with it. The dip of both zones is near vertical. "E" and "F" Zones are much weaker and do not have any magnetics associated with them.

On Sheet 3 covering the north end of the property there are three separate conductors lettered G, H and I

zones as well as some minor one line conductors. "G" Zone consists of an echelon conductors trending northwest over a length of about 2,000 feet. The conductivity is quite good over one section but the magnetics are rather flat. "H" Zone is a weaker conductor with a length of about 2,000 feet but it is associated with a magnetic anomaly again suggesting sulphides. These conductors have a slightly more northerly strike than those to the south and would appear to be close to the volcanic-granite contact. The dips are again nearly vertical. "I" Zone is a weak conductor without a magnetic anomaly somewhat similar to "F" Zone.

CONCLUSIONS AND RECOMMENDATIONS

The geophysical surveys have outlined a major northwest trending structure represented by a strong magnetic anomaly that extends for a length of 6 miles across the entire property. This is referred to as "A" Zone and associated with the magnetic anomaly is a series of strong conductive zones that appear to lie along the flanks of the magnetic highs. The magnetic anomaly is probably due to bands of magnetite, possibly an iron formation, and the conductors represent graphite and/or sulphides associated with the iron formation.

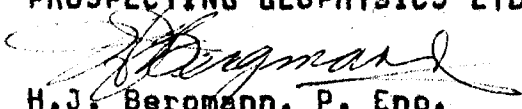
There are several other conductive zones to the north of the magnetic anomaly. Three of these, namely C, D, and H zones have associated magnetic anomalies suggesting the presence of sulphides. "H" zone would appear to be close to a volcanic-granite contact.

In the case of "A" zone, the overburden appears to be light and geological examination may give an indication of the cause of the conductors prior to drilling. The conductors within the magnetic anomalies are all similar and probably represent the same type of conductive material.

The other zones will probably have to be investigated by diamond drilling and in order of importance they are D, C, H, and G zones.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.


H.J. Bergmann, P. Eng.

Montreal, Que.
Jan. 31, 1976.



32E04NW0003 2.2102 SINGER

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LIST OF CLAIMS
TRAVERSED BY GEOPHYSICAL SURVEYS

L 420971	L 429592	L 420944	L 429528
L 420972	L 429593	L 420948	L 429623
L 420973	L 429594	L 420949	L 429624
L 420974	L 420882	L 420950	L 429625
L 420979	L 420885	L 420951	L 429626
L 420980	L 420886	L 420952	L 429627
L 429563	L 420887	L 420954	L 429628
L 429564	L 420890	L 420955	L 429631
L 429565	L 420891	L 420956	L 429632
L 429566	L 420892	L 420957	L 429633
L 429567	L 420893	L 420958	L 429634
L 429568	L 420894	L 420959	L 429635
L 429569	L 420896	L 420960	L 429636
L 429571	L 420897	L 420962	L 429640
L 429572	L 420898	L 420963	L 429641
L 429573	L 420899	L 420964	L 429642
L 429574	L 420900	L 420965	L 429643
L 429575	L 420901	L 429510	L 429644
L 429578	L 420902	L 429515	L 429645
L 429580	L 420903	L 429516	L 429646
L 429581	L 420904	L 429517	L 429647
L 429582	L 420905	L 429518	L 429648
L 429584	L 420906	L 429519	L 429649
L 429585	L 420910	L 429520	L 429650
L 429586	L 420911	L 429521	L 429651
L 429587	L 420912	L 429522	L 429652
L 429588	L 420913	L 429523	L 429653
L 429589	L 420942	L 429524	L 429654
L 429590	L 420943	L 429527	L 429655
L 429591			

TOTAL CLAIMS - 117



Ministry of Natural Resources

File 2.2102GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL
TECHNICAL DATA STATEMENTTO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

RECEIVED

MAY 3 1976

PROJECTS UNIT.

Type of Survey(s) ELECTROMAGNETIC AND MAGNETOMETER
Township or Area Abbotsford, Singer and Case
Claim Holder(s) Dome Exploration (Canada) Ltd.Survey Company Prospecting Geophysics Ltd.
Author of Report H.J. Bergmann
Address of Author 3518 Vendome Ave., Montreal, Que
Covering Dates of Survey Nov. 10, 1975 - Jan 30, 1976
(linecutting to office)
Total Miles of Line Cut 105.10SPECIAL PROVISIONS
CREDITS REQUESTEDENTER 40 days (includes
line cutting) for first
survey.ENTER 20 days for each
additional survey using
same grid.

Geophysical

DAYS
per claim--Electromagnetic 40--Magnetometer 20

--Radiometric _____

--Other _____

Geological _____

Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)DATE: Jan. 30/76SIGNATURE: H.J. Bergmann

Author of Report or Agent

L.D.

Res. Geol. _____ Qualifications 63.1061Previous Surveys

File No. Type Date Claim Holder

2-1973	Airborne	certificate	

MINING CLAIMS TRAVERSED
List numericallySee attached list
(prefix) (number)TOTAL CLAIMS 117

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 4,420 Number of Readings 5,864 (Magnetometer)
5,300 (Electromagnetic)
 Station interval 100 ft. Line spacing 400 ft.
 Profile scale 1" = 40% (Electromagnetic)
 Contour interval 1000 gammas (Magnetometer)

MAGNETIC

Instrument Proton Precession Magnetometer - Geometrics Ltd.
 Accuracy - Scale constant ± 1 gamma
 Diurnal correction method Base stations
 Base Station check-in interval (hours) 2 hours
 Base Station location and value See Maps

ELECTROMAGNETIC

Instrument Geonics EM-17
 Coil configuration Horizontal
 Coil separation 300 ft.
 Accuracy $\pm 1\%$
 Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line
 Frequency 1600 Hz.
 (specify V.L.F. station)
 Parameters measured In-phase and out-of-phase components.

GRAVITY

Instrument _____
 Scale constant _____
 Corrections made _____
 Base station value and location _____
 Elevation accuracy _____

INDUCED POLARIZATION

RESISTIVITY

Instrument _____
 Method ☐ Time Domain ☐ Frequency Domain
 Parameters - On time _____ Frequency _____
 - Off time _____ Range _____
 - Delay time _____
 - Integration time _____
 Power _____
 Electrode array _____
 Electrode spacing _____
 Type of electrode _____

M.442

2-2102

CASE TWP.

DATE OF ISSUE

MAY - 4 1976

SURVEYS AND MAPPING
BRANCH



ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

LEGEND

CANCELLED
PATENTED LAND
CROWN LAND SALE
LEASES
LOCATED LAND
LICENSE OF OCCUPATION
MINING RIGHTS ONLY
SURFACE RIGHTS ONLY

C.
P.
C.S.
L.
LOC.
L.O.
M.R.O.
S.R.O.

LARDER LAKE MINING DIVISION

DISTRICT OF COCHRANE

—SCALE, 40 CHAINS TO AN INCH.—

KENNING TWP.

X	X	X
429528	429522	429521
X	X	X
429527	429523	429520
X	X	X
429526	429524	429519
X	X	X
429525	429518	

GRAVEL
FILE
100000

CHALLIES TWP.

ABBOTSFORD TWP.



200

PLINY TWP.

STEELE TWP.

400' Surface rights reserved around all lakes and rivers.

Singer Twp. - M.590

THE TOWNSHIP
OF
2.2102
ABBOTSFORD

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
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	—
CANCELLED	—

NOTES

400' Surface Rights Reservation around
all lakes and rivers.

DATE OF ISSUE
MAY - 4 1976
SURVEYS AND MAPPING
BRANCH

PLAN NO.- **M.400**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Case Twp. - M.442

Adair Twp. - M.401

Scapa Twp. - M.585

Hepburn Twp. - M.500



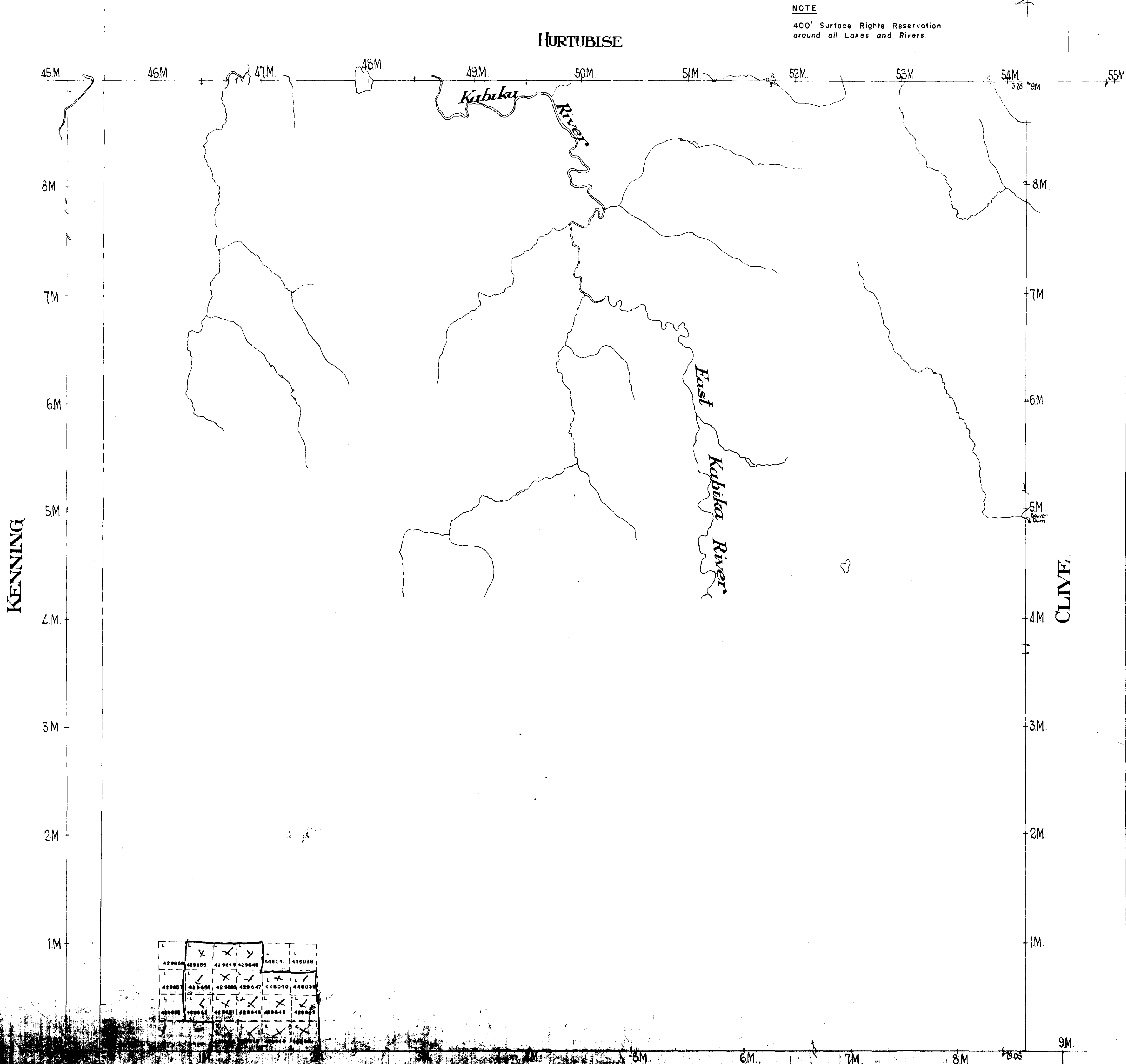
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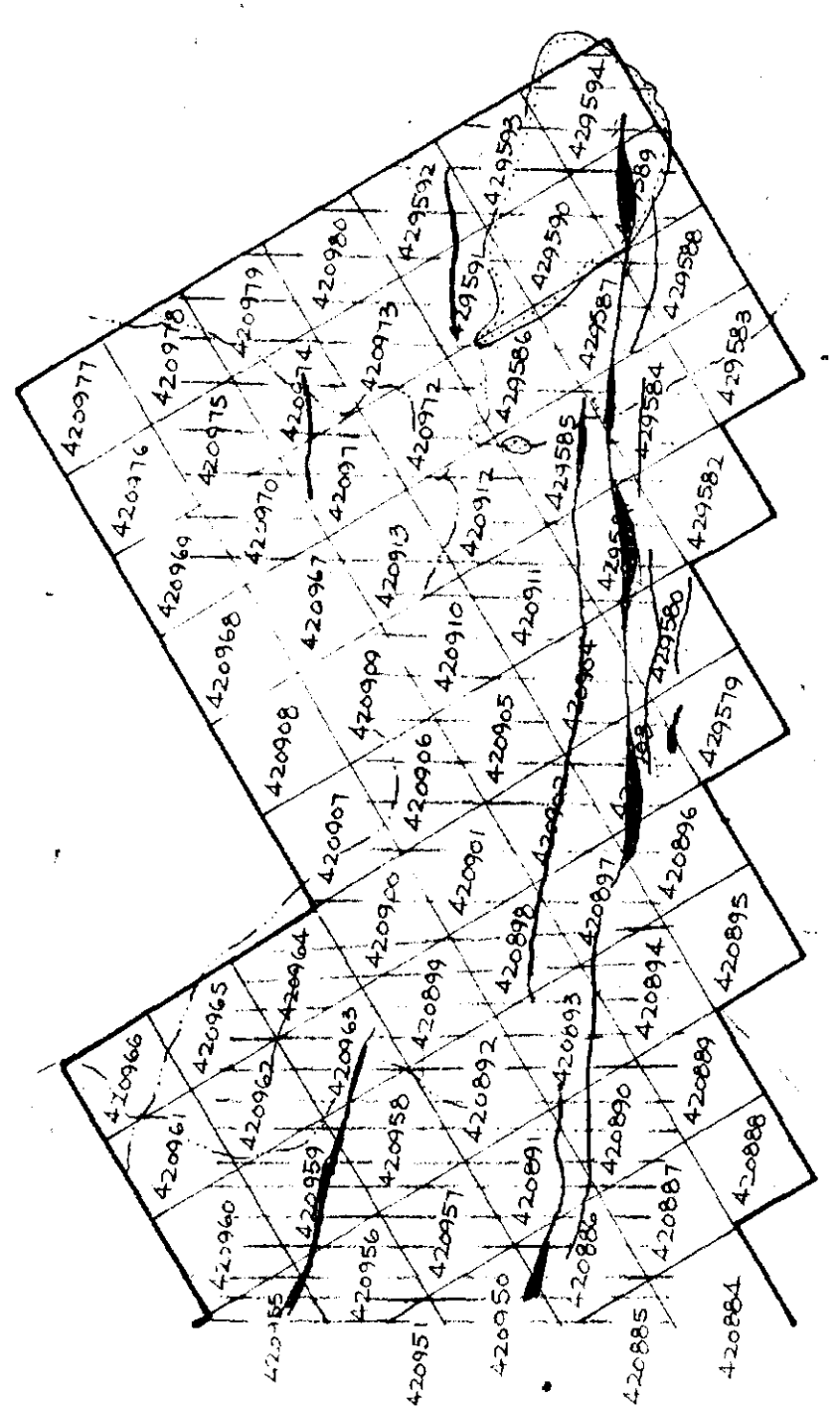
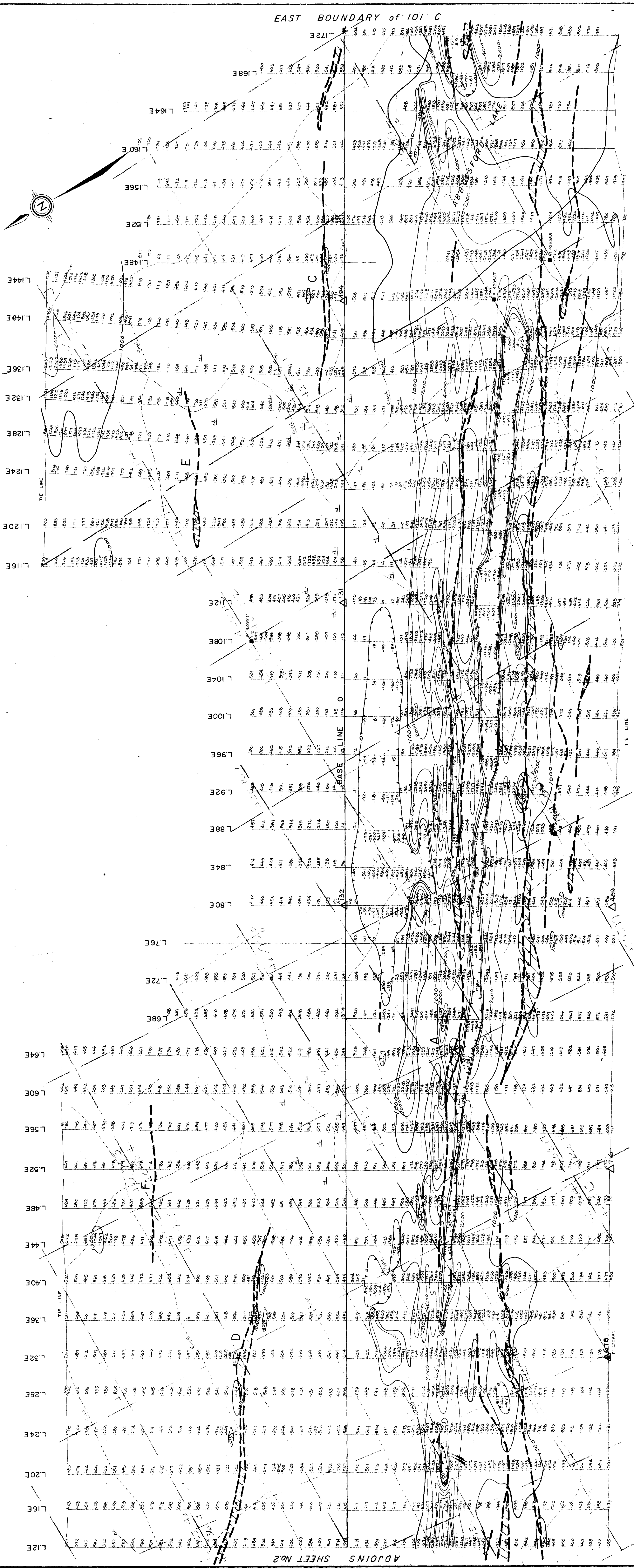
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DATE OF ISSUE
MAY - 4 1976
SURVEYS AND MAPPING
BRANCH

NOTE

400' Surface Rights Reservation
around all Lakes and Rivers.





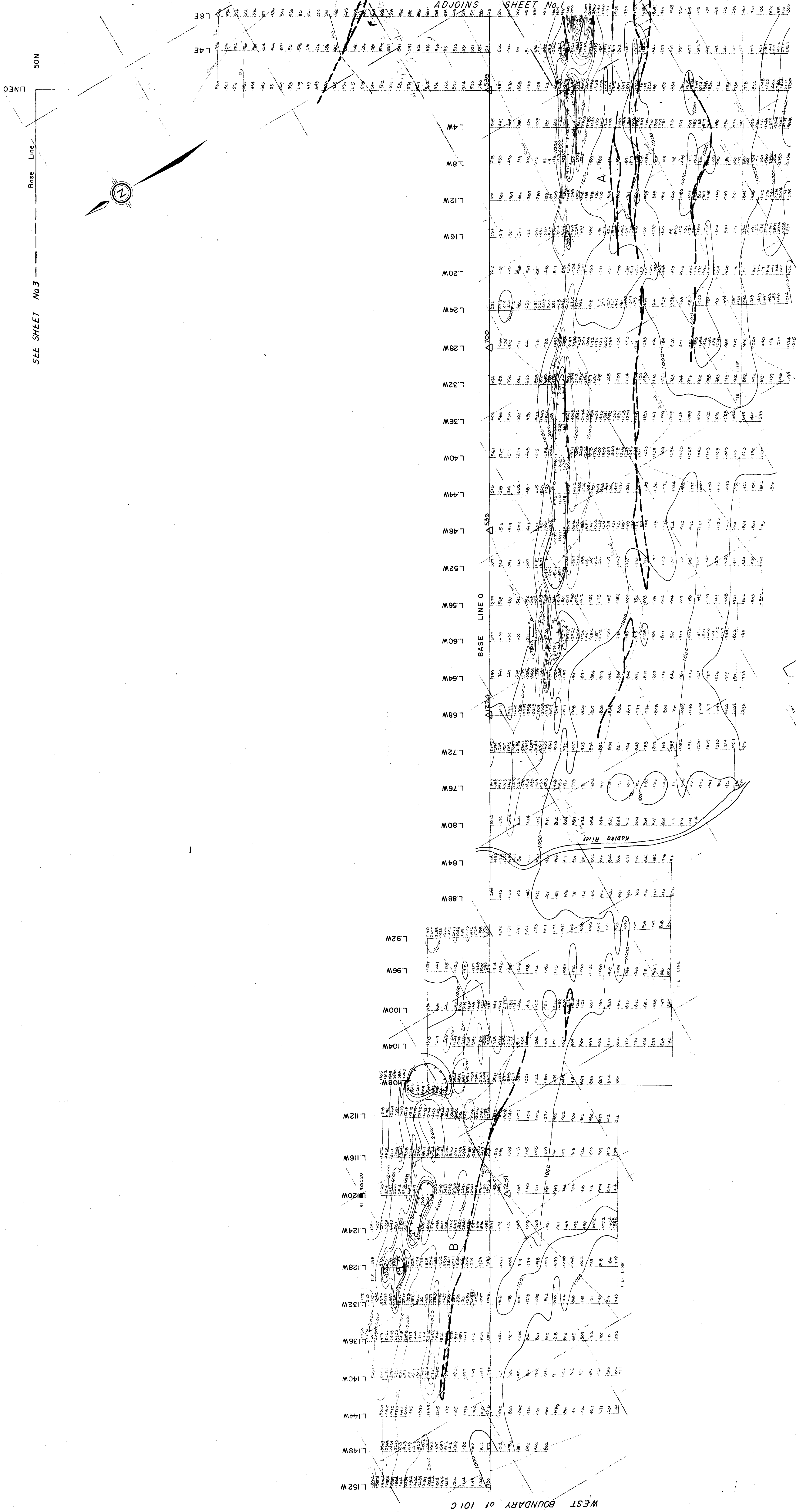
LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- RELATIVE VALUES OF THE VERTICAL COMPONENT OF THE EARTH'S MAGNETIC FIELD (in Gauss)
- MAGNETIC CONTOURS
- BASE STATION
- ELECTRICAL CONDUCTOR

MAGNETIC SURVEY	
DOME EXPLORATION (CANADA) LTD.	
PROJECT	IOI C
AREA	ABBOTSFORD TWP., ONT.
SCALE	1 INCH TO 400 FEET
DATE	JAN 1976
DRAWN BY	T. SHAW
PROSPECTING GEOPHYSICS LTD.	

PART OF IOI C CLAIM GROUP

1" = 40 Chains



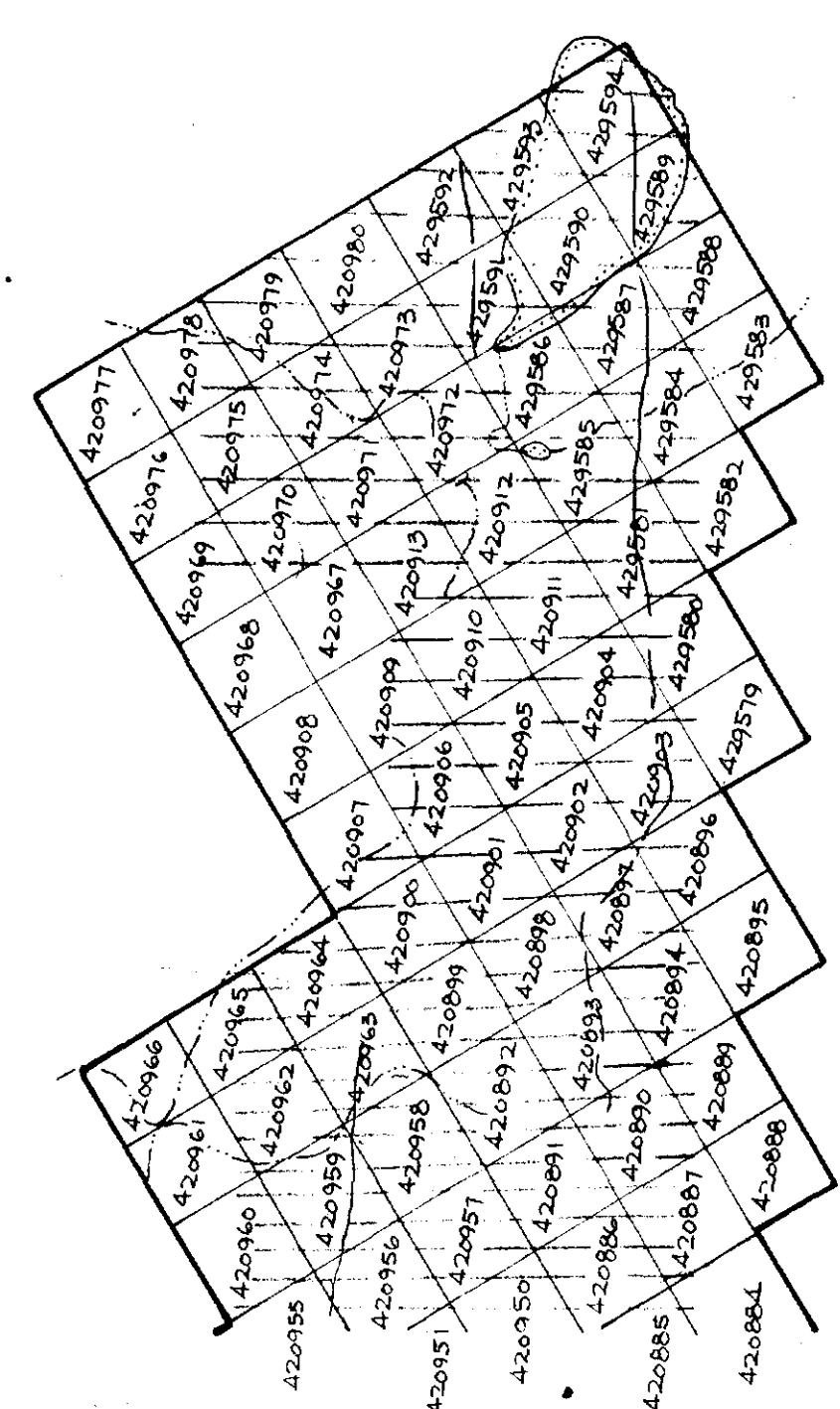
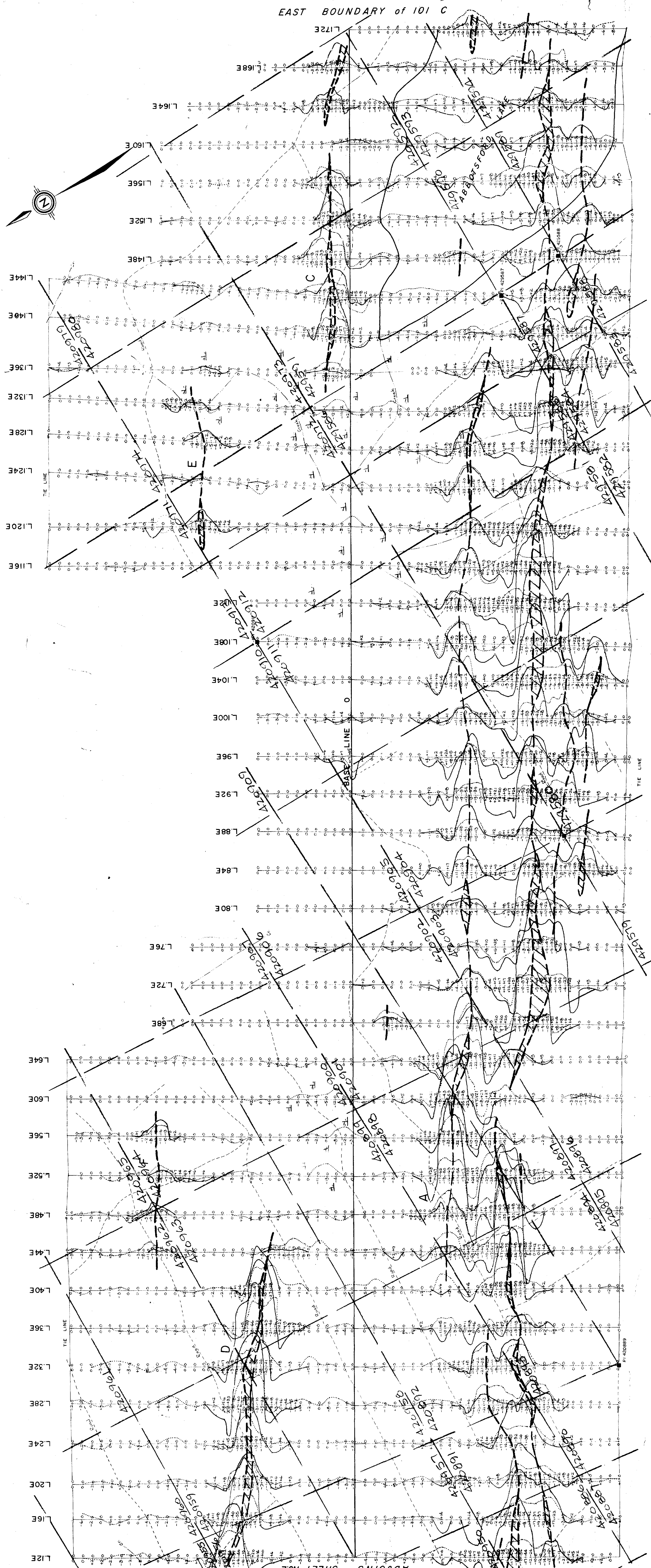
LEGEND

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- RELATIVE VALUES OF THE VERTICAL COMPONENT OF THE EARTH'S MAGNETIC FIELD (in Gauss)
- MAGNETIC CONTOURS
- BASE STATION
- ELECTRICAL CONDUCTOR

MAGNETIC SURVEY	
DOMESTIC EXPLORATION (CANADA)	
PROSPECTING GEOPHYSICS LTD.	
ABBOTSFORD TWP. ONT.	
SCALE 1 INCH TO 400 FEET	
DATE JAN 1976	
DRAWN BY T. SHAW	
MAP OR SHEET NO. 2 of 3	

PART OF 101C CLAIM GROUP

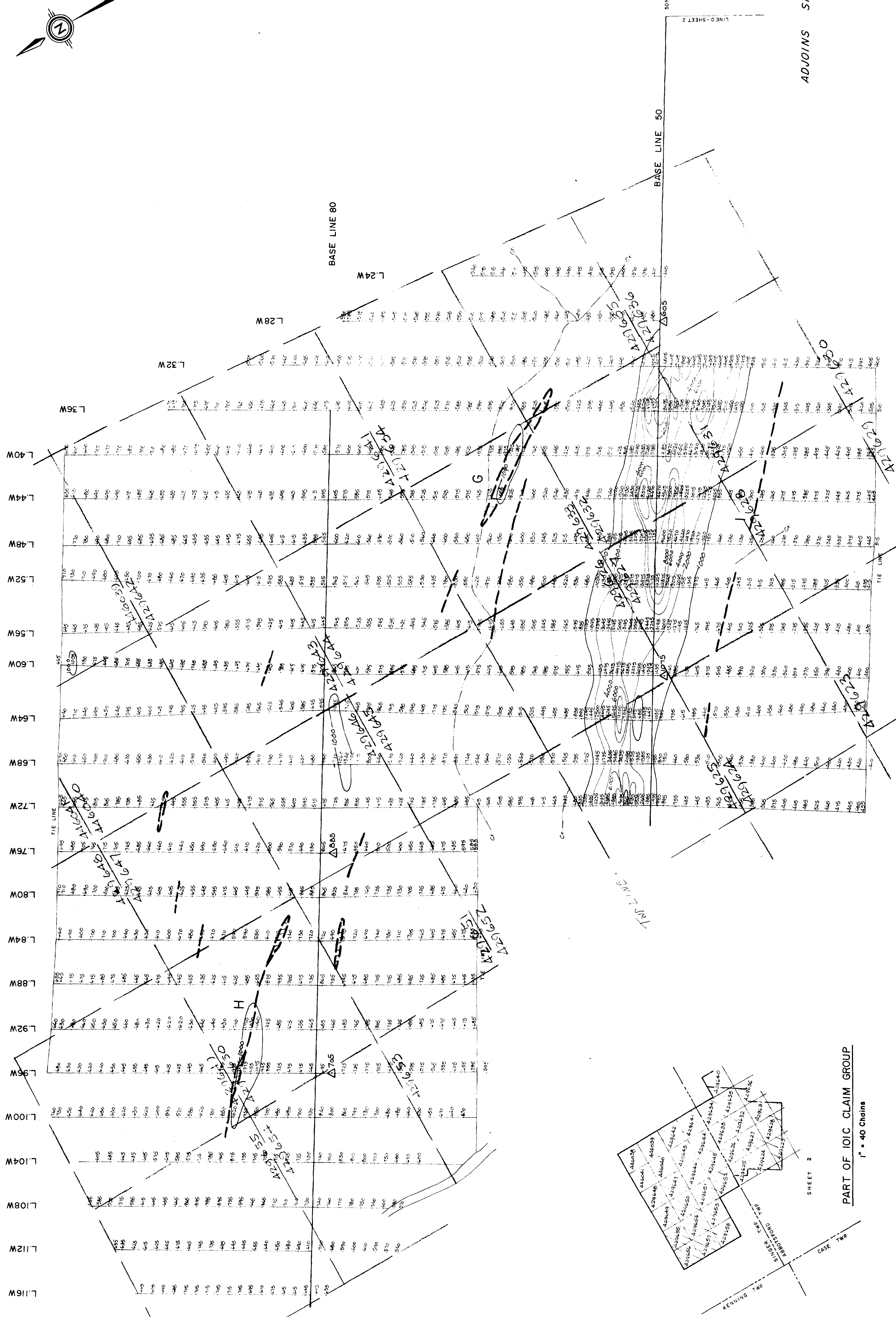
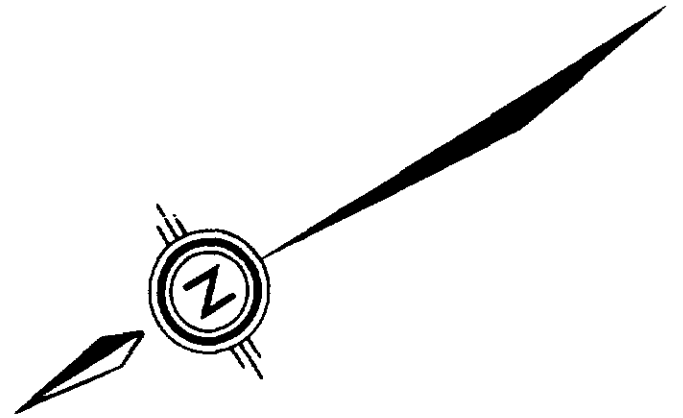
1" = 40 Chains

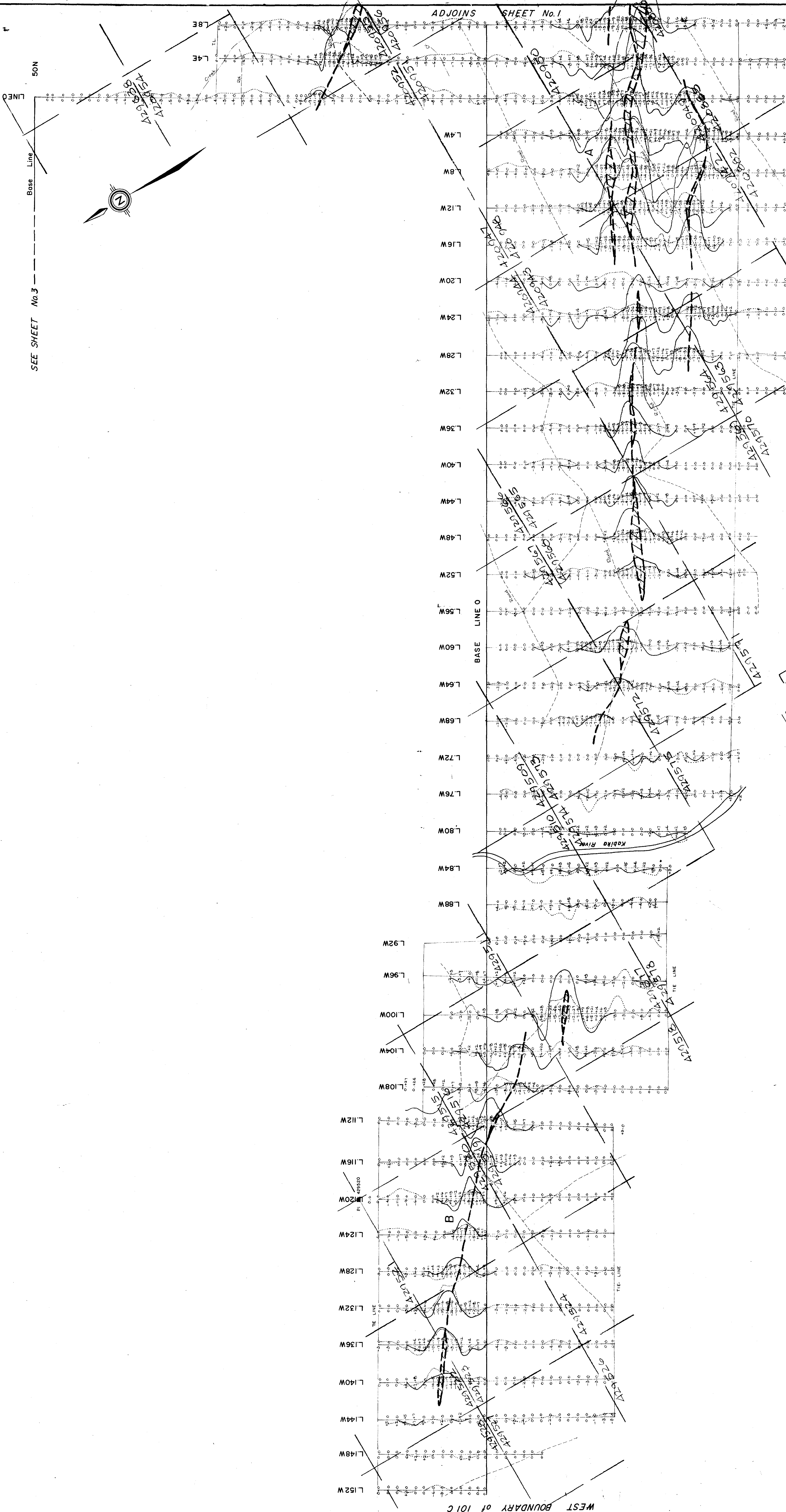


LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- ELECTROMAGNETIC READINGS - In Phase Component (%)
- ELECTROMAGNETIC READINGS - Out of Phase Component (%)
- PROFILE - In Phase Component (Scale 1" = 40 %)
- PROFILE - Out of Phase Component (Scale 1" = 40 %)
- COIL SEPARATION - 300 Feet
- INSTRUMENT - GEONICS EM-17
- ELECTRICAL CONDUCTOR

TITLE OF WORK ELECTROMAGNETIC SURVEY	
CLIENT DOMEX EXPLORATION (CANADA) LTD.	
PROJECT 101 C	AREA ABBOTSFORD TWP, ONT.
SCALE 1 INCH TO 400 FEET	DATE JAN. 1976
DRAWN BY T. SHAW	MAP OR SHEET NO. 1 of 3
PROSPECTING GEOPHYSICS LTD.	





LEGEND

MEASUREMENT STATIONS ALONG PICKET LINES

ELECTROMAGNETIC READINGS - In Phase Component (%)

ELECTROMAGNETIC READINGS - Out of Phase Component (%)

PROFILE - In Phase Component (Scale 1" = 40 %)

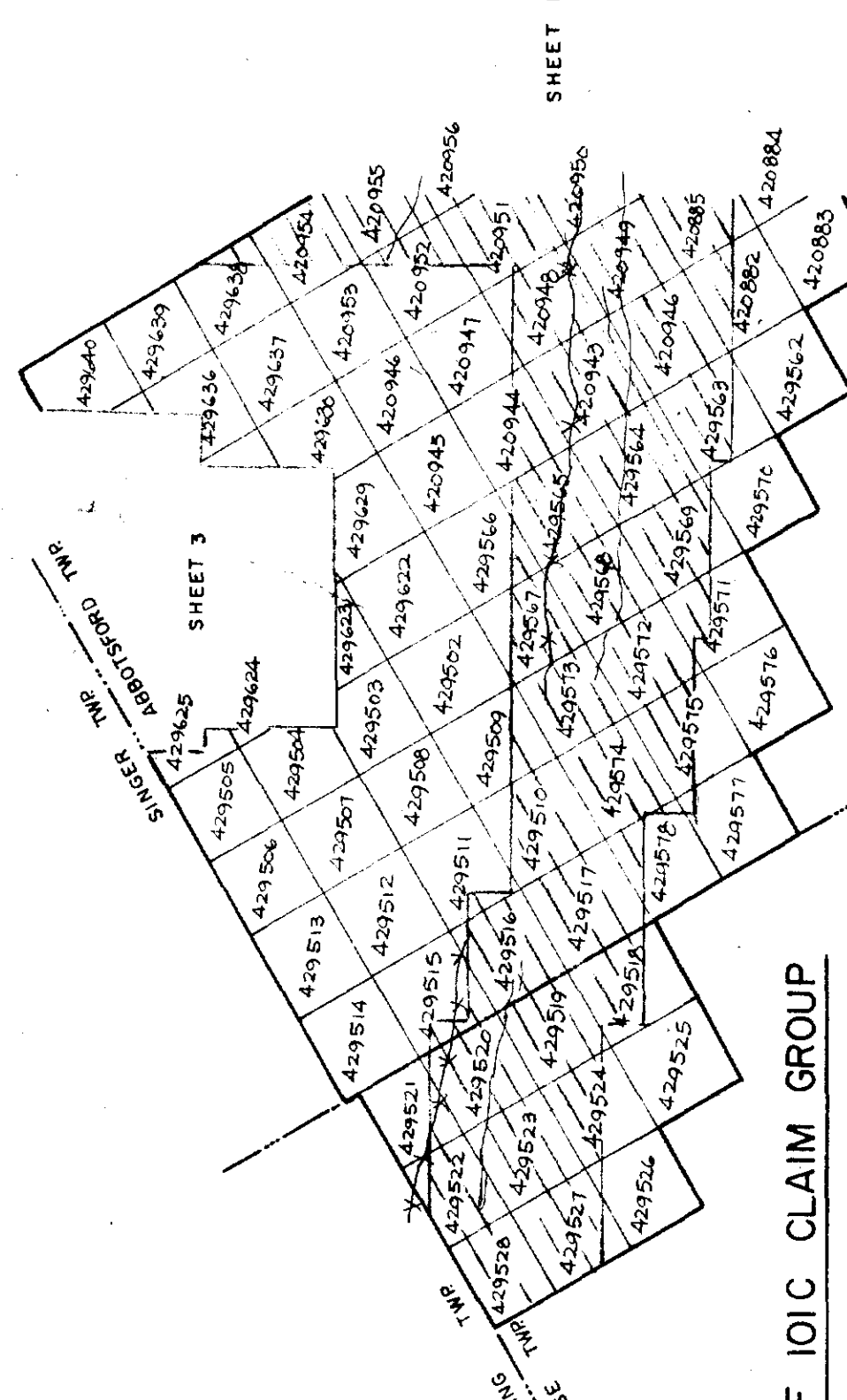
PROFILE - Out of Phase Component (Scale 1" = 40 %)

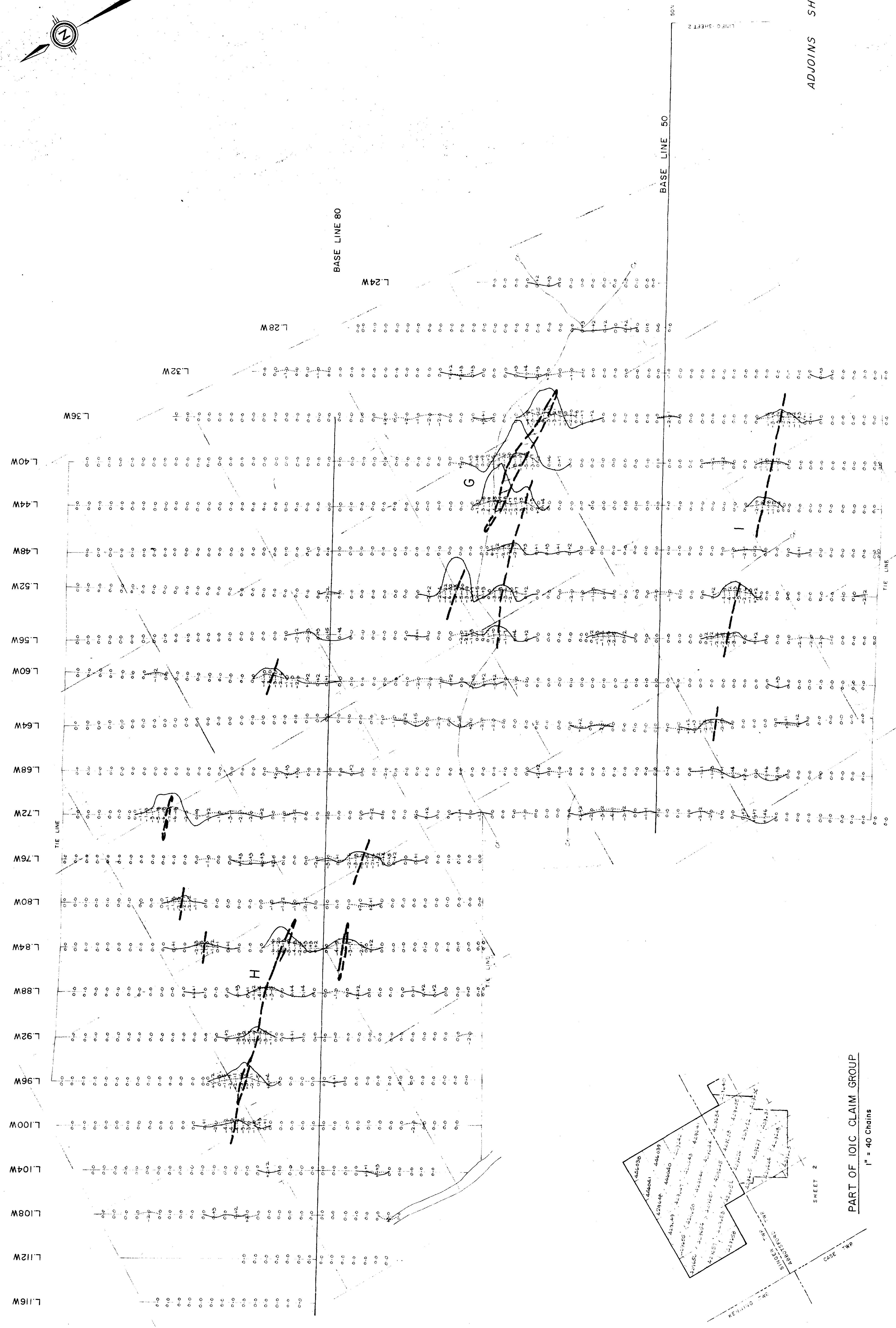
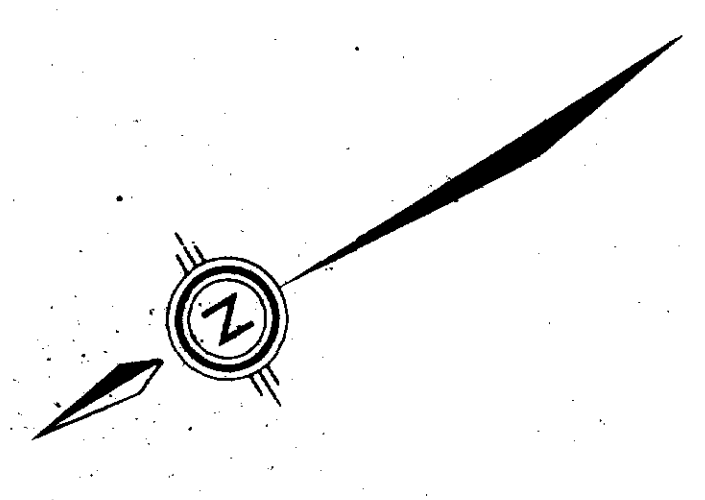
COIL SEPARATION - 300 Feet

INSTRUMENT - GEONICS EM-17

ELECTRICAL CONDUCTOR

TYPE OF WORK		ELECTROMAGNETIC SURVEY	
CLIENT		DOMESTIC EXPLORATION (CANADA)	
PROJECT		101 C	
AREA		ABBOTSFORD TWP, ONT.	
SCALE		1 INCH TO 400 FEET	
DATE		JAN. 1976	
DRAWN BY		T. SHAW	
MADE OR SHEET NO.		2 of 3	





LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- ELECTROMAGNETIC READINGS - In Phase Component (%)
- ELECTROMAGNETIC READINGS - Out of Phase Component (%)
- PROFILE - In Phase Component (Scale 1" = 40%)
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- COIL SEPARATION - 300 Feet
- INSTRUMENT - GEONICS EM-17
- ELECTRICAL CONDUCTOR

TYPE OF WORK	
ELECTROMAGNETIC SURVEY	
CLIENT	
DOMEX EXPLORATION (CANADA) LTD.	
PROJECT	101 C
AREA	ABBOTSFORD TWP, ONT.
SCALE	1 INCH TO 400 FEET
DATE	JAN. 1976
DRAWN BY	T. SHAW
CHECKED BY	
PROSPECTING GEOPHYSICS LTD.	
3 of 3	

