2.3875

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BORDER GROUP

NUFORT RESOURCES INC.

MAGNETOMETER AND ELECTROMAGNETIC SURVEYS

STOUGHTON TOWNSHIP
DISTRICT OF COCHRANE
LARDER LAKE MINING DIVISION
ONTARIO

11 May 1981

W. G. Wahl Limited

W. G. WAHL LIMITED

CONSULTANTS: GEOLOGY - GEOPHYSICS

350 BAY ST. - 10TH FLR. - TORONTO, CANADA M5H 2S6
TEL. (416) 363-8761 - CABLE: WAHLCO - TORONTO

11 May 1981

Mr. J. A. Harquail
President
Surveymin Limited
330 Bay Street
Suite 1107
Toronto, Ontario
M5H 2S8

Dear Mr. Harquail:

Submitted herewith is our report entitled:

BORDER GROUP
NUFORT RESOURCES INC.

MAGNETOMETER AND ELECTROMAGNETIC SURVEYS
STOUGHTON TOWNSHIP
DISTRICT OF COCHRANE
LARDER LAKE MINING DIVISION
ONTARIO

The ground geophysical surveys extended and further defined the regional geology as mapped by the Ontario Division of Mines.

Nineteen anomalous conductive zones were identified during the course of the geophysical survey, some of which exhibit strong continuity along strike and appear to map conductive horizons within a specific geologic unit. Others transect the magnetic pattern and known geologic strike and are thought to be the mappable expression of fault zones.

The vlf data was able to partially define the major anomalous zones; however, due to the very high frequency signal used (16.0 to 24.0 KHz) in comparison to the much lower frequencies (222Hz to 1777Hz) used with the conventional horizontal loop system, detailed definition of these conductors as to width, depth, dip, conductivity, etc., could not realistically be interpreted at this time.

It is strongly recommended that a multi-frequency horizontal loop electromagnetic survey be carried out over the land portion of the survey area in order to further define the anomalous zones mapped by the vlf survey.

. . . . /2

It is also recommended that a geological mapping and sampling program be initiated on the property in order to provide the necessary geological data base to further define the geophysical anomalies.

GENERAL

The following geophysical report details the results of the ground magnetometer and electromagnetic surveys undertaken by W. G. Wahl Limited on behalf of Surveymin Limited and Nufort Resources Inc.

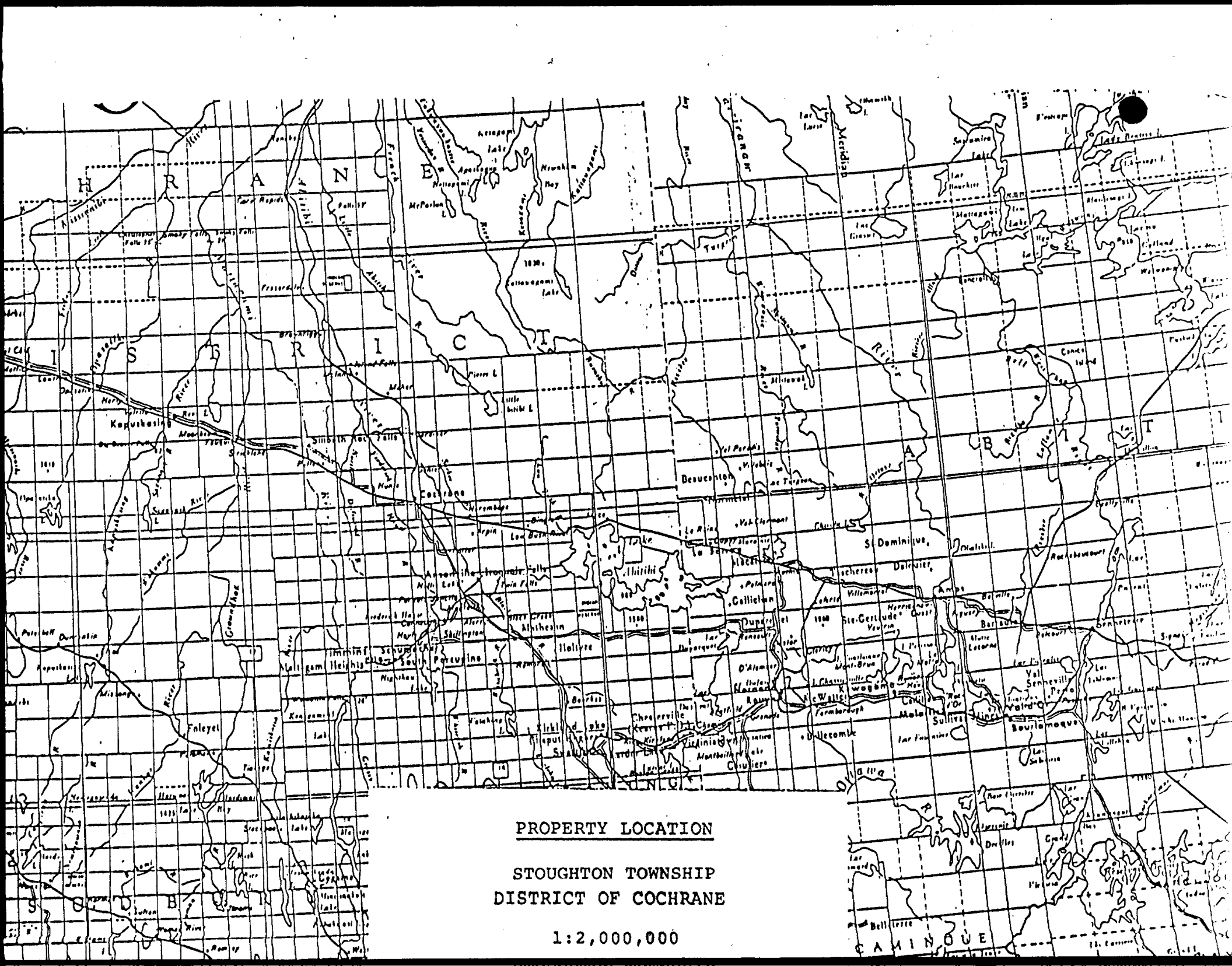
The property lies in the northeast corner of Stoughton Township, District of Cochrane, and is accessible by four-wheel-drive vehicle west from the small village of Roquemaure, Quebec, via an all-weather gravel road to Lake Abitibi, at which point an old logging road trends south and westerly across the Ontario border to the property.

The Border Group consists of the following 29 unpatented contiguous mining claims, all of which are duly recorded with Mr. G. J. Koleszar, Mining Recorder, Larder Lake Mining Division.

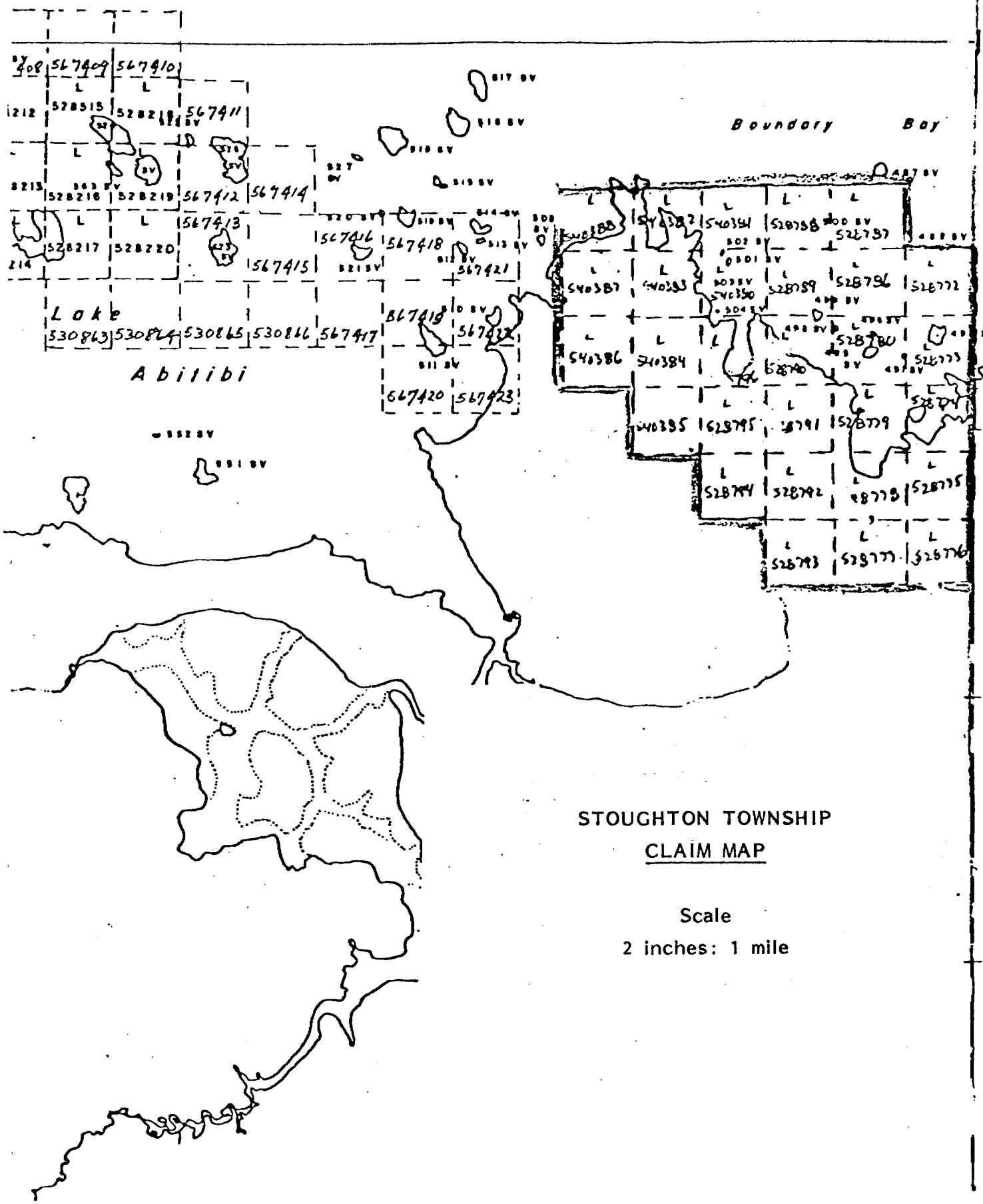
L-528772	L-528775	L-528778
L-528773	L-528776	L-528779
L-528774	L-528777	L-528780
L-528786	L-528790	L-528794
L-528787	L-528791	L-528795
L-528788	L-528792	L-528796
L-528789	L-528793	--
L-540380	L-540383	L-540386
L-540381	L-540384	L-540387
L-540382	L-540385	L-540388

LINE CUTTING

The line cutting was conducted under the direct supervision of Mr. Orville Hicks et-al of Schumacher, Ontario during the period from January 14, 1981, to February 15, 1981. The survey grid consisted of 1.96 miles of baseline trending N45°W and 25.04 miles of grid line trending N45°E, established at 400 foot intervals along the entire baseline. Fifty-foot stations


PROPERTY LOCATION
STOUGHTON TOWNSHIP
DISTRICT OF COCHRANE
1:2,000,000

MISTAKEN ISLANDS M.279



STOUGHTON TOWNSHIP

CLAIM MAP

Scale

2 inches: 1 mile

were established on all lines.

MAGNETOMETER SURVEY

The magnetometer survey was carried out by M. E. Wilson, B.Sc., of W. G. Wahl Limited during the period from February 19 to March 6, 1981, employing a Scintrex MP-2 total field proton precession magnetometer in conjunction with a Scintrex MBS-2 total field recording base station attached to a Simpson M2750 strip chart recorder.

The magnetic data was observed at a 25-foot station interval on all lines of the established grid. The data was corrected for diurnal fluctuations, reduced to a local datum and presented as a contoured interpretation of these data.

VLF ELECTROMAGNETIC SURVEY

The vlf electromagnetic survey was carried out by J. Palladini of W. G. Wahl Limited during the period from February 19, 1981, to March 6, 1981, employing a Geonics EM-16 vlf survey unit. The inphase and quadrature response parameters were recorded at 50-foot station interval on all lines of the established grid closing to a 25-foot station interval in anomalous areas. The vlf transmitting station is located in Seattle Washington.

DISCUSSION

In order to facilitate the discussion of the geophysical results, the following table has been developed.

TABLE OF GEOPHYSICAL RESULTS

CONDUCTOR	LOCATION	STRIKE	LENGTH	CONDUCTIVITY	MAGNETIC ASSOCIATION
C-1a	L 8+00W - 9+75S L12+00W - 9+25S L16+00W - 11+25S L20+00W - 12+75S	Arcuate ≅130°	1600'	moderate to strong	Conformable to magnetic low (< 50 nT) situated on the northern flank of a 250 nT magnetic anomaly.
C-1b	L 0+00 - 9+25S L 4+00E - 8+50S L 8+00E - 7+00S	≅120°	1300'	strong I.P. +60 to -60 over 250 ft.	
C-2a	L16+00E - 23+50S	≅120°	?	incomplete	Transects 300 nT magnetic anomaly - fault?
C-2b	L32+00E - 19+25S L36+00E - 18+50S L40+00E - 18+00S	≅120°	1000' open to east & west	moderate	
C-3	L40+00E - 8+50S L44+00E - 8+00S L48+00E - 6+75S L52+00E - 6+00S	≅120°	1600' open to the east	moderate	Transects 941 nT magnetic anomaly - possible fault parallel to C-2a & b.
C-4	L44+00E - 4+50S L48+00E - 2+00S L52+00E - BL L56+00E - 2+75N L60+00E - 4+00N	≅100°	2200' open to the east	moderate	Conformable to a magnetic low (150-200 nT) situated on the north flank of a 1000 nT magnetic anomaly.
C-5	L56+00E - 5+50N	?	one line anomaly	poor	Magnetic low.

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CONDUCTOR	LOCATION	STRIKE	LENGTH	CONDUCTIVITY	MAGNETIC ASSOCIATION
C-6	L24+00E - 5+25S L28+00E - 3+50S L32+00E - 2+00S L36+00E - 0+25S L40+00E - 1+25N L44+00E - 3+25N L48+00E - 4+75N L52+00E - 6+50N	≈110°	3300'	strong L36+00E I.P. +30 to -54 over 200 ft.	Transects major magnetic anomalies
C-7a	L36+00W - 5+50S L32+00W - 4+75S L28+00W - 3+25S L24+00W - BL L20+00W - BL	≈100°	2100'	moderate	Varying conductivity associated with a discontinuous magnetic anomaly up to 2215 nT.
C-7b	L12+00W - 0+50S L 8+00W - 1+50N	≈100°		moderate	
C-7c	L 0+00 - 2+00N L 4+00E - 3+00N L 8+00E - 4+25N L12+00E - 6+00N L16+00E - 5+50N L20+00E - 6+00N	≈130°	2400'	moderate	Associated with a region of moderately high magnetic relief in the range of 400-500 nT.
C-8	L24+00E - 6+00N L28+00E - 8+00N L32+00E - 9+50N L36+00E - 10+00N L40+00E - 10+50N L44+00E - 13+00N L48+00E - 15+00N L52+00E - 15+00N	≈130°	≈3000' open to the east	moderate to strong	Transects magnetic trends - possible fault.

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CONDUCTOR	LOCATION	STRIKE	LENGTH	CONDUCTIVITY	MAGNETIC ASSOCIATION
C-9	L36+00W - 4+50N L32+00W - 6+00N L28+00W - 4+00N L24+00W - 4+00N L20+00W - 4+50N L16+00W - 7+25N L12+00W - 8+25N L 8+00W - 7+50N L 4+00W - 8+75N L 0+00 - 9+75N L 4+00E - 10+25N L 8+00E - 10+75N L12+00E - 12+00N L16+00E - 12+50N L20+00E - 12+50N L24+00E - 12+00N	≅130°	≅6400'	moderate to strong	Region of low background magnetic relief (50-100 nT) Possible mappable expression of known mineralized zone.
C-10	L32+00E - 14+50N L36+00E - 16+25N L40+00E - 21+00N L44+00E - 22+25N	contorted ≅130°	≅1500'	moderate	Magnetic low.
C-11	L32+00E - 19+00N L36+00E - 23+00N L40+00E - 23+50N	contorted ≅130°	≅1500'	moderate	Magnetic low.
C-12	L36+00W - 8+50N L32+00W - 9+50N L28+00W - 11+00N L24+00W - 12+50N L20+00W - 12+25N L16+00W - 12+25N	arcuate ≅120°	2400'	poor to moderate	Magnetic low.

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CONDUCTOR	LOCATION	STRIKE	LENGTH	CONDUCTIVITY	MAGNETIC ASSOCIATION
C13a	L40+00W - 11+00N L36+00W - 11+50N L32+00W - 13+50N L28+00W - 15+00N L24+00W - 15+50N L20+00W - 16+00N L16+00W - 16+00N L12+00W - 17+00N	arcuate ≅120°	3000'	moderate	Magnetic low.
C-13b	L 4+00W - 18+50N L 0+00 - 19+25N L 4+00E - 19+75N L 8+00E - 20+00N L12+00E - 21+00N L16+00E - 21+00N L20+00E - 22+00N L24+00E - 23+50N	≅130°	3000'	moderate to strong	Magnetic low.
C-14a	L16+00E - 24+50N L20+00E - 25+50N L24+00E - 26+00N	≅130°	1100'	moderate to strong	Magnetic low.
C-14b	L32+00E - 28+50N L36+00E - 31+00N	≅110°	700' open to the east	moderate	
C-15	L20+00W - 24+50N L16+00W - 25+50N L12+00W - 25+50N	≅130°	600'	poor to moderate	Magnetic Low

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CONDUCTOR	LOCATION	STRIKE	LENGTH	CONDUCTIVITY	MAGNETIC ASSOCIATION
C-16	L 4+00W - 31+00N L 0+00 - 31+25N L 4+00E - 31+25N L 8+00E - 31+25N L12+00E - 32+50N	≅130°	2000'	poor	Magnetic low.
C-17	L24+00E - 33+50N	≅130°	1000'	poor to moderate	Magnetic low.
C-18	L12+00W - 34+00N L 8+00W - 34+50N	≅130°	800'	moderate	South flank of a 300 nT anomaly.
C-19	L 8+00W - 41+50N L 4+00W - 41+50N L 0+00 - 41+50N L 4+00E - 43+00N L 8+00E - 44+50N L12+00E - 46+25N L16+00E - 46+50N L20+00E - 47+00N	≅130°	3400' open to the east	moderate	South flank of a 250-400 nT magnetic anomaly.

CONCLUSIONS

Numerous vlf electromagnetic anomalies were identified during the course of the geophysical survey, some of which exhibit strong continuity along strike and appear to map conductive horizons within a specific geologic unit. Others transect the magnetic pattern and known geologic strike and are thought to be the mappable expression of fault zones.

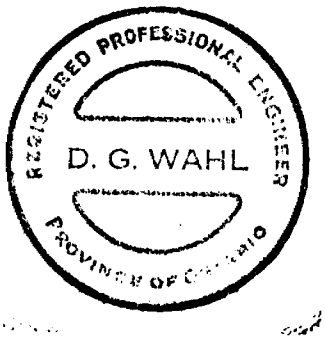
The vlf data was able to partially define the major anomalous zones; however, due to the very high frequency signal used (16.0 to 24.0 KHz) in comparison to the much lower frequencies (222Hz to 1777Hz) used with the conventional horizontal loop system, detailed definition of these conductors as to width, depth, dip, conductivity, etc., could not realistically be interpreted at this time.

RECOMMENDATIONS

It is strongly recommended that a multi-frequency horizontal loop electromagnetic survey be carried out over the land portion of the survey area in order to further define the anomalous zones mapped by the vlf survey.

It is also recommended that a geological mapping and sampling program be initiated on the property in order to provide the necessary geological data base to further define the geophysical anomalies.

All of which is respectfully submitted.



Sincerely yours,
W. G. WAHL LIMITED

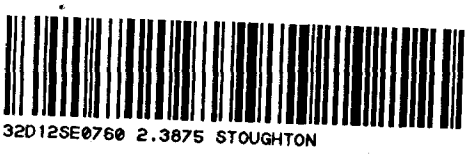
D. G. Wahl, P.Eng.
Consulting Engineer

DGW/pl

Ontario

Ministry of N

GEOPHYSICAL – GEOL(
TECHNICAL D/



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TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) MAGNETOMETER & ELECTROMAGNETIC

Township or Area STOUGHTON TOWNSHIP

Claim Holder(s) SURVEYMINE LIMITED

1107 - 330 BAY ST TORONTO.

Survey Company W. B. WAHL LIMITED

Author of Report D. G. WAHL P.Eng.

Address of Author Suite 1000 - 350 BAY ST

Covering Dates of Survey Jan 14/81 - May 11/81
(linecutting to office)

Total Miles of Line Cut 27 line miles

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	20
–Magnetometer	40
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: May 11/81 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 63.2859

Previous Surveys

File No.	Type	Date	Claim Holder
			LD

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

SEE ATTACHED LIST

TOTAL CLAIMS 29

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations MAG - 2850 / EM - 2140 Number of Readings MAG - 2850 / EM - 2140

Station interval MAG - 50 feet / EM - 100 closing to 50 feet Line spacing 400 ft

Profile scale EM 1" To 40% INPHASE & QUADRATURE

Contour interval AS INDICATED 50 - 100 nT

MAGNETIC

Instrument Scintrex MP-2 TOTAL FIELD PROTON

Accuracy – Scale constant ± 1 nT

Diurnal correction method time interpolation

Base Station check-in interval (hours) Scintrex MBS-2 Total field base station

Base Station location and value All grid-baseline intercepts have been established as base stations

ELECTROMAGNETIC

Instrument Geonics EM-16

Coil configuration Signal Coil – vertical axis; Reference Coil - horizontal

Coil separation Transmitting station – distant –

Accuracy IN-PHASE ± 2% QUADRATURE ± 2%

Method: ☑ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency Seattle Washington U.S.A. 18.6 kHz
(specify V.L.F. station)

Parameters measured IN-PHASE & QUADRATURE components OF THE SECONDARY FIELD.

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

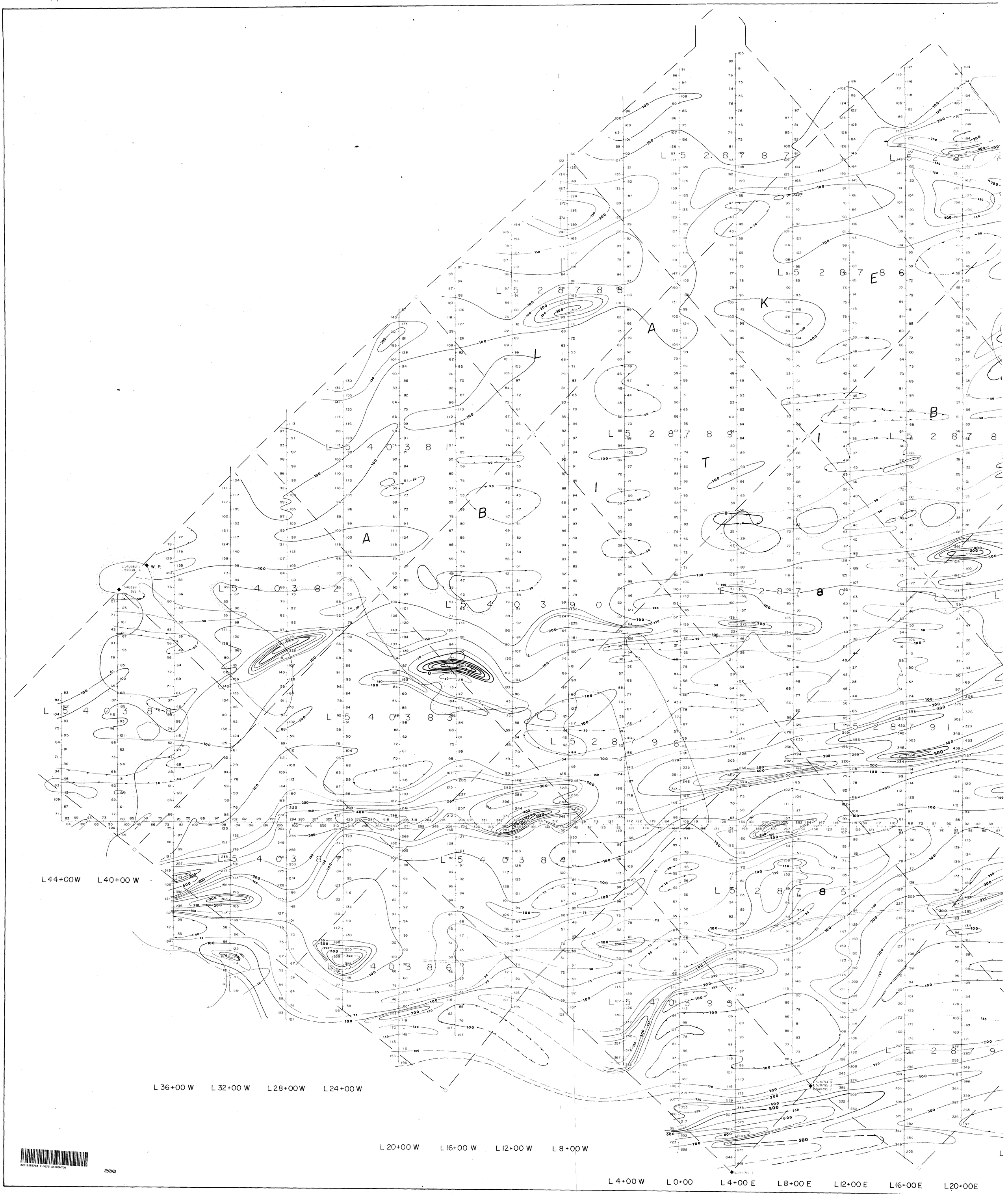
Power

Electrode array

Electrode spacing

Type of electrode

L-528772	L-528775	L-528778
L-528773	L-528776	L-528779
L-528774	L-528777	L-528780
L-528786	L-528790	L-528794
L-528787	L-528791	L-528795
L-528788	L-528792	L-528796
L-528789	L-528793	--
L-540380	L-540383	L-540386
L-540381	L-540384	L-540387
L-540382	L-540385	L-540388


L 5 2 8 7 8 8
L 5 2 8 7 E 8 6
L 5 2 8 7 8
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L 5 4 0 3 8 2
L 5 4 0 3 8 8
L 5 4 0 3 8 3
L 5 4 0 3 8 7
L 5 4 0 3 8 4
L 5 4 0 3 8 6
L 5 2 8 7 8 9
L 5 2 8 7 8 0
L 5 2 8 7 9 1
L 5 2 8 9 6
L 5 4 0 3 9 0
L 5 4 0 3 9 5
L 5 2 8 7 8 5
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L 16+00 W
L 12+00 W
L 8+00 W
L 4+00 W
L 0+00
L 4+00 E
L 8+00 E
L 12+00 E
L 16+00 E
L 20+00E

200

C-19
C-18
C-16
C-15
C-14a
C-13a
C-13b
C-12
C-9
C-7a
C-7b
C-7c
C-1a
C-1b
C-2a
W.P.
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L 540388-1
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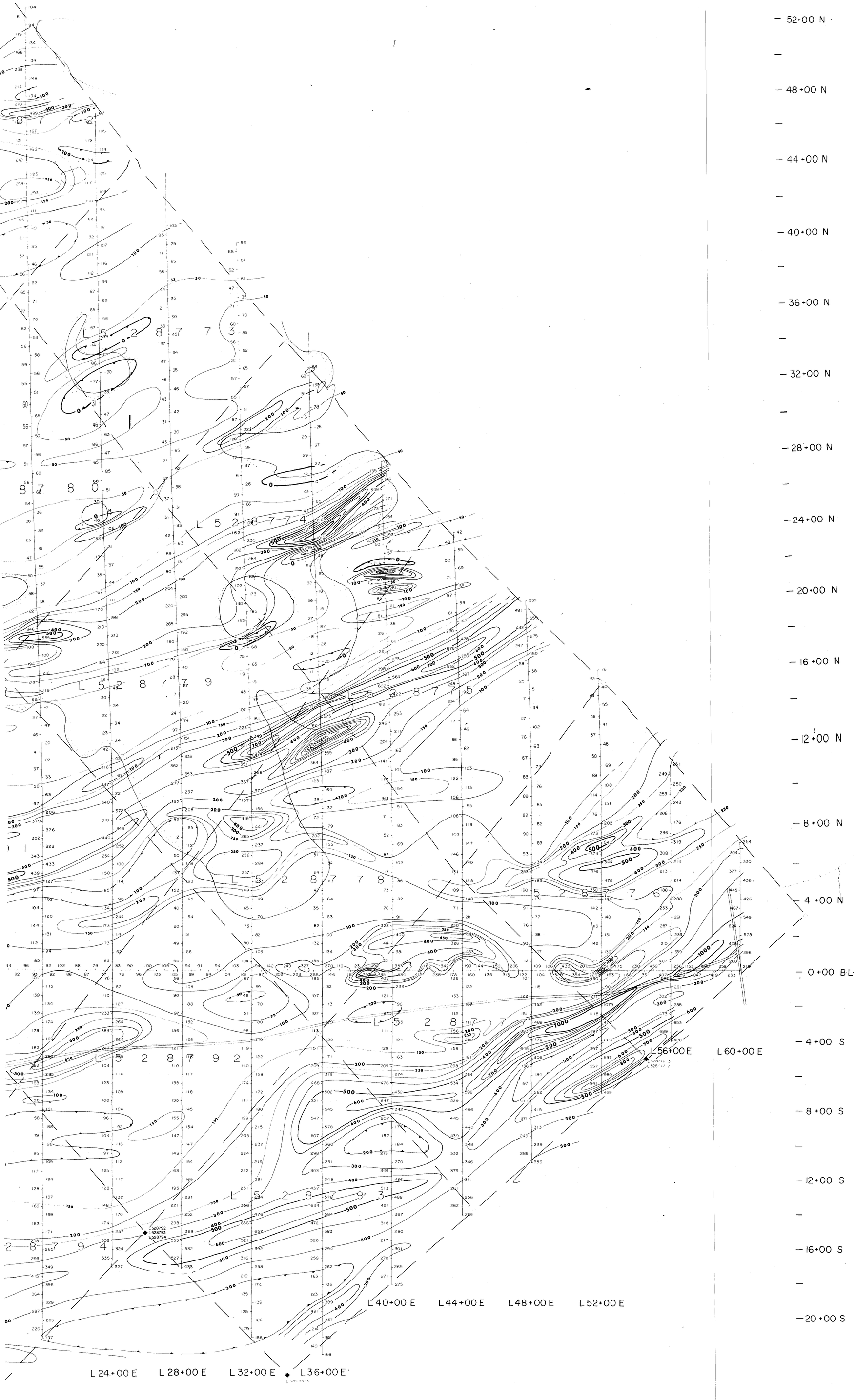
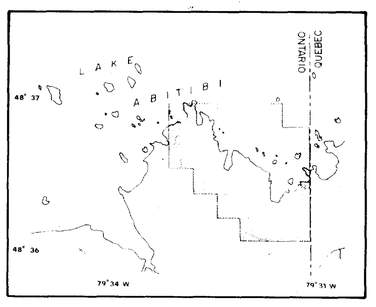
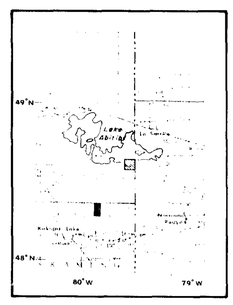


LEGEND

- EXISTING CLAIM POSTS
- ASSUMED CLAIM POSTS
- CLAIM LINE
- SHORE LINE
- ROAD



INDEX MAP
1:50,000



LOCATION MAP
1:2,000,000

NUFORT RESOURCES INCORPORATED

BORDER GROUP

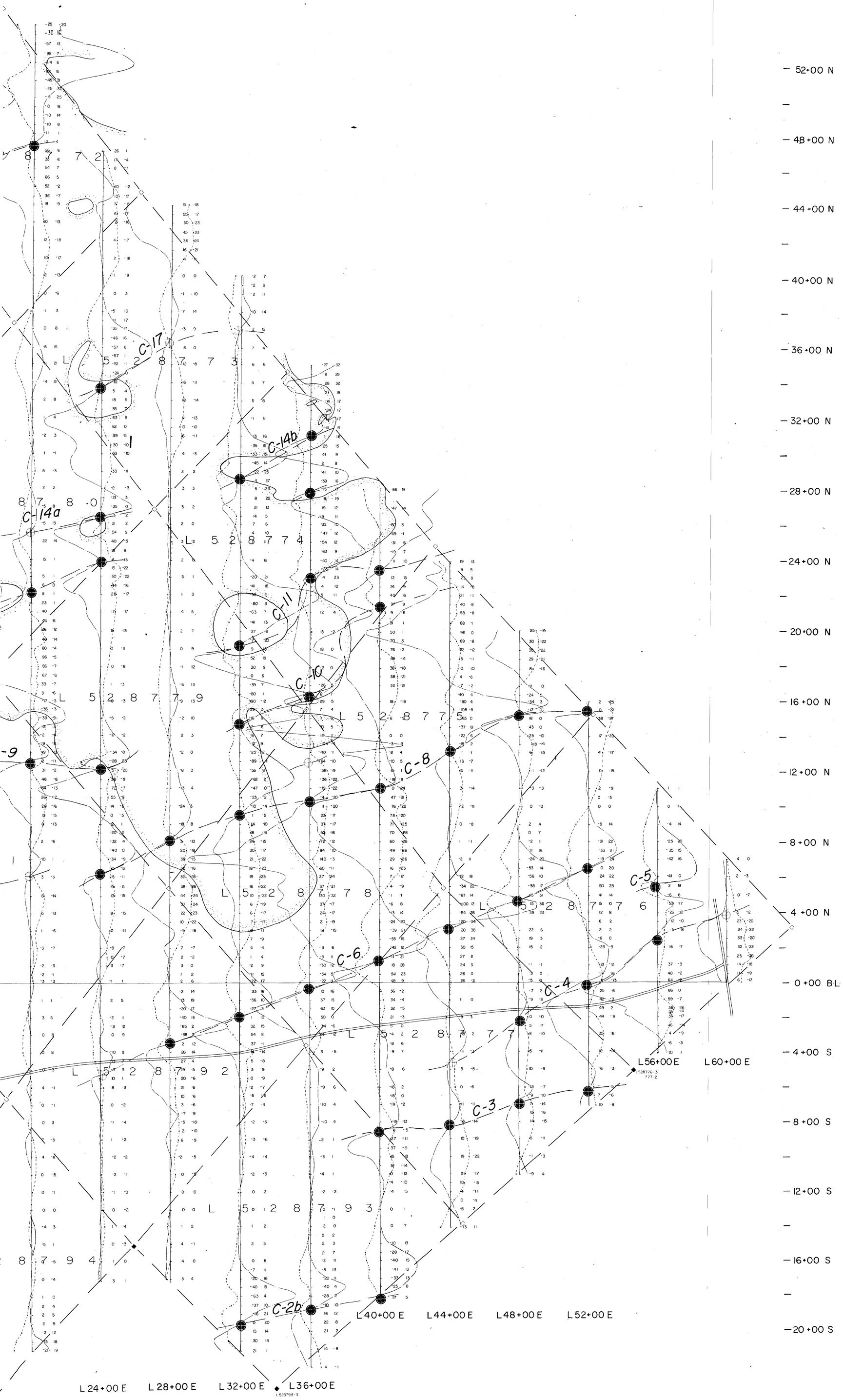
TOTAL FIELD PROTON MAGNETOMETER SURVEY
(background 59,000 nT)

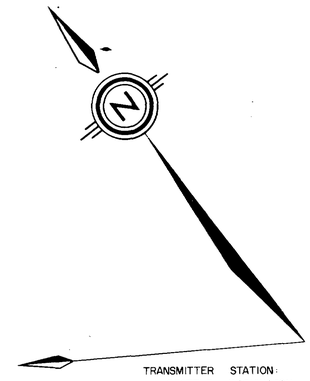
D. G. WAHL
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

W.G. WAHL LTD.

SCALE: 1" = 200'

DRAWN BY: J.P.P.	DATE: FEB 1
TRACED BY: M.E.L.	DATE: MAR 1
N.T.S. 32-D-12	APPROVED
	DWG. N.





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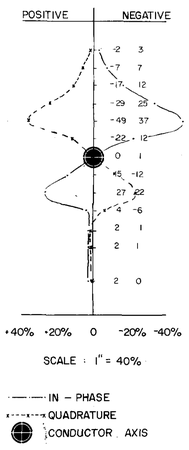
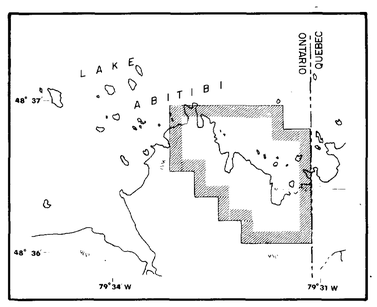


LEGEND

- ■ EXISTING CLAIM POSTS
- □ ASSUMED CLAIM POSTS
- CLAIM LINE
- SHORE LINE
- ROAD



INDEX MAP
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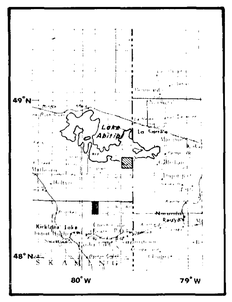

LOCATION MAP
1:2,000,000

NUFORT RESOURCES INCORPORATED

BORDER GROUP

VLF ELECTROMAGNETIC SURVEY

GEONICS EM 16

TRANSMITTER STATION SEATTLE WASHINGTON

REGISTERED PROFESSIONAL ENGINEER D. G. WAHL PROVINCE OF ONTARIO

DRAWN BY	J.P.P.	DATE	FEB. 1981
TRACED BY	J.P.P.	DATE	MAR. 1981
N.T.S.	32-D-12	APPROVED BY	

W.G. WAHL LTD. | SCALE: 1" = 200' | DWG. No.