



42A07NW0210 2.13774 CARMAN

010

2.13774

**REPORT ON
COMBINED HELICOPTER-BORNE
MAGNETIC AND VLF SURVEY
SOUTH PORCUPINE
TIMMINS, ONTARIO**

Block 1
34 Claims
Carman/Langmuir Townships

RECEIVED

DEC 18 1990

MINING LANDS SECTION

**FOR
TIMMINS NICKEL INC.
BY
AERODAT LIMITED
September 25, 1990**

J9071

**Adriana Carbone
Geologist**

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APPENDIX I - Personnel

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List of Maps
(Scale 1:10,000)

Basic Maps: (As described under Appendix B of the Contract)

1. **PHOTOMOSAIC BASE MAP;**
Prepared from available photos from the National Photo Library (Ottawa).
2. **FLIGHT LINE MAP;**
Showing all flight lines and fiducials with the base map.
3. **TOTAL FIELD MAGNETIC CONTOURS;**
Showing magnetic values corrected of all diurnal variation with flight lines, fiducials, and base map.
4. **VERTICAL MAGNETIC GRADIENT CONTOURS;**
Showing magnetic gradient values calculated from the total field magnetics with flight lines, fiducials and base map.
5. **VLF-EM TOTAL FIELD CONTOURS;**
Showing VLF total field response from the line transmitter with flight lines, fiducials, and base map.

1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Timmins Nickel Inc. Equipment operated during the survey included a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a video tracking camera, radar altimeter, and an electronic positioning system. Magnetic and altimeter data were recorded both in digital and analog forms. Positioning data was stored in digital form, encoded on VHS format video tape and recorded at regular intervals in local UTM coordinates, as well as being marked on the flight path mosaic by the operator while in flight.

The survey areas are located near South Porcupine, Ontario, and are referred to as Block 1 - Block 7 inclusive. Blocks 1, 2 and 3 were flown on September 3, 1990. Block 4 was flown on September 4, 1990. Block 5 was flown on September 5, 1990. Block 6 was flown on September 8, 1990, and Block 7 was flown on September 7, 1990. Data from twelve flights were used to compile the survey results. The flight lines were oriented at an angle of 90 degrees, with a nominal line spacing of 100 metres (according to Appendix "A" of the contract) for Blocks 2, 5 and Block 6. Blocks 1, 3 and 7 were oriented at an angle of 0 degrees, with a nominal line spacing of 100 metres (according to Appendix "A" of the contract). Block 4 consisted of bi-directional flight lines, a detailed area oriented at an angle of 0 degrees, with a nominal line spacing of 50 metres, while the remaining areas of Block 4 was oriented at 90 degrees with a nominal line spacing of 100 metres (according to Appendix "A" of the contract). Geophysical information is provided in the form of maps at 1:10,000. Coverage and data quality were

considered to be well within the specifications described in the service contract.

The purpose of the survey was to record airborne geophysical data over ground that is of interest to Timmins Nickel Inc.

The survey encompasses approximately 1100 line kilometres of the recorded data that were compiled in a map form at a scale of 1:10,000. The maps are presented as part of this report according to specifications laid out by Timmins Nickel Inc.

2. SURVEY AREA LOCATION

The survey areas are depicted on the following index maps.

Block 1 is centred at approximate geographic latitude 48 degrees 22 minutes North, longitude 81 degrees 01 minutes West.

Block 2 is centred at approximate geographic latitude 48 degrees 19 minutes North, longitude 81 degrees 01 minutes West.

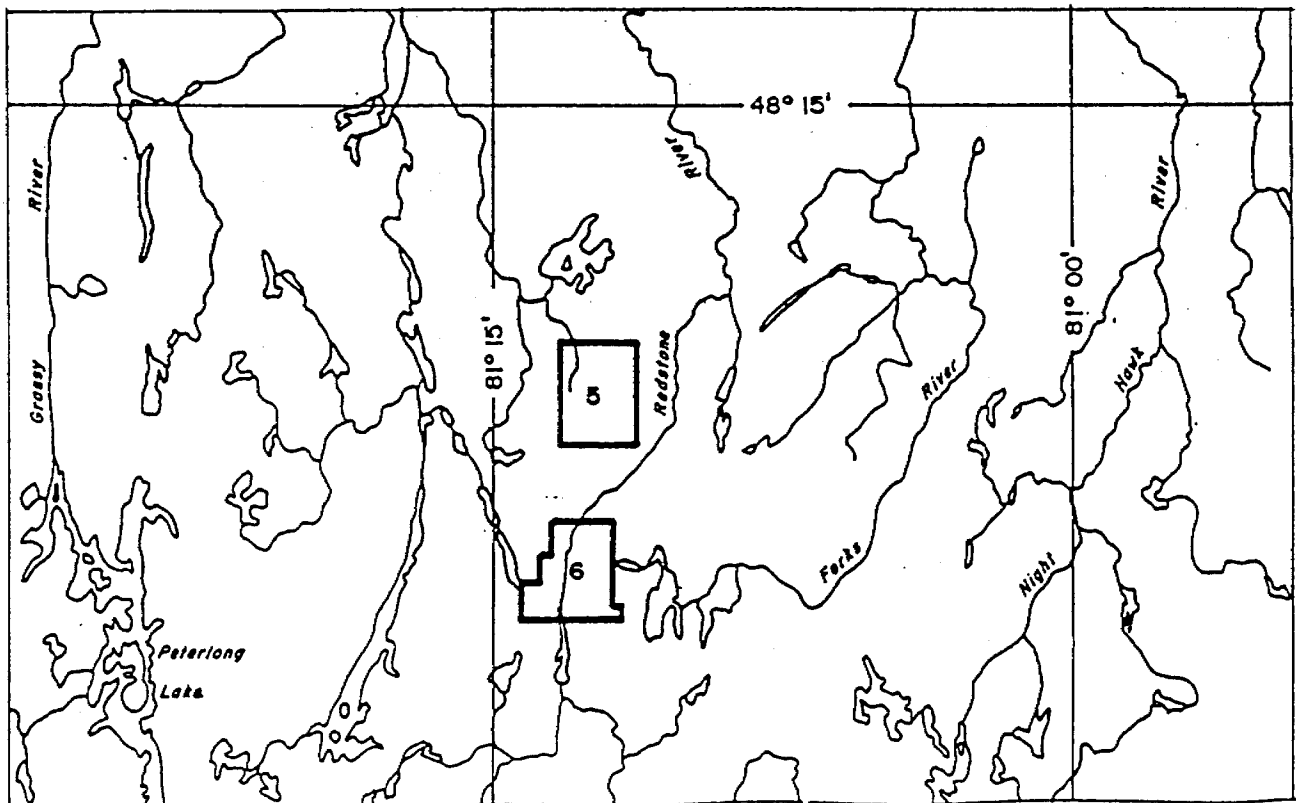
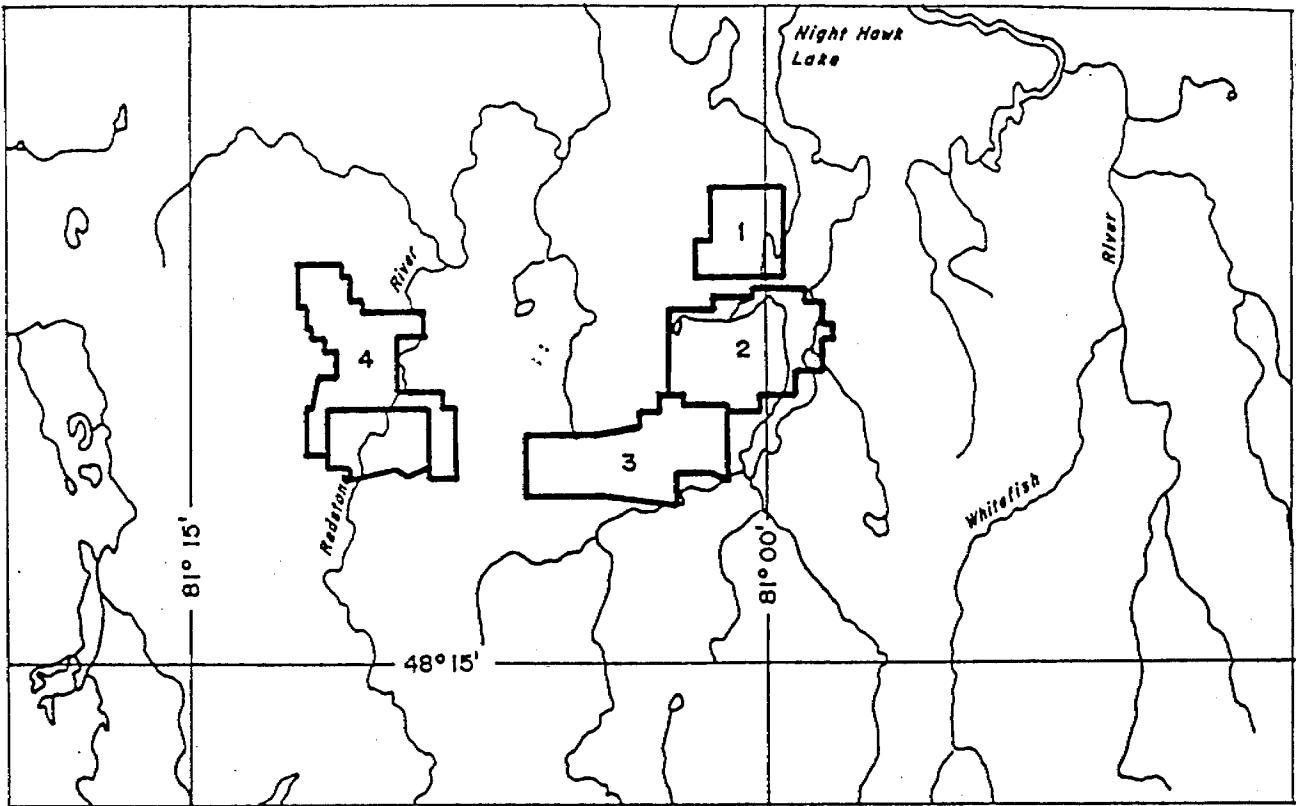
Block 3 is centred at approximate geographic latitude 48 degrees 18 minutes North, longitude 81 degrees 04 minutes West.

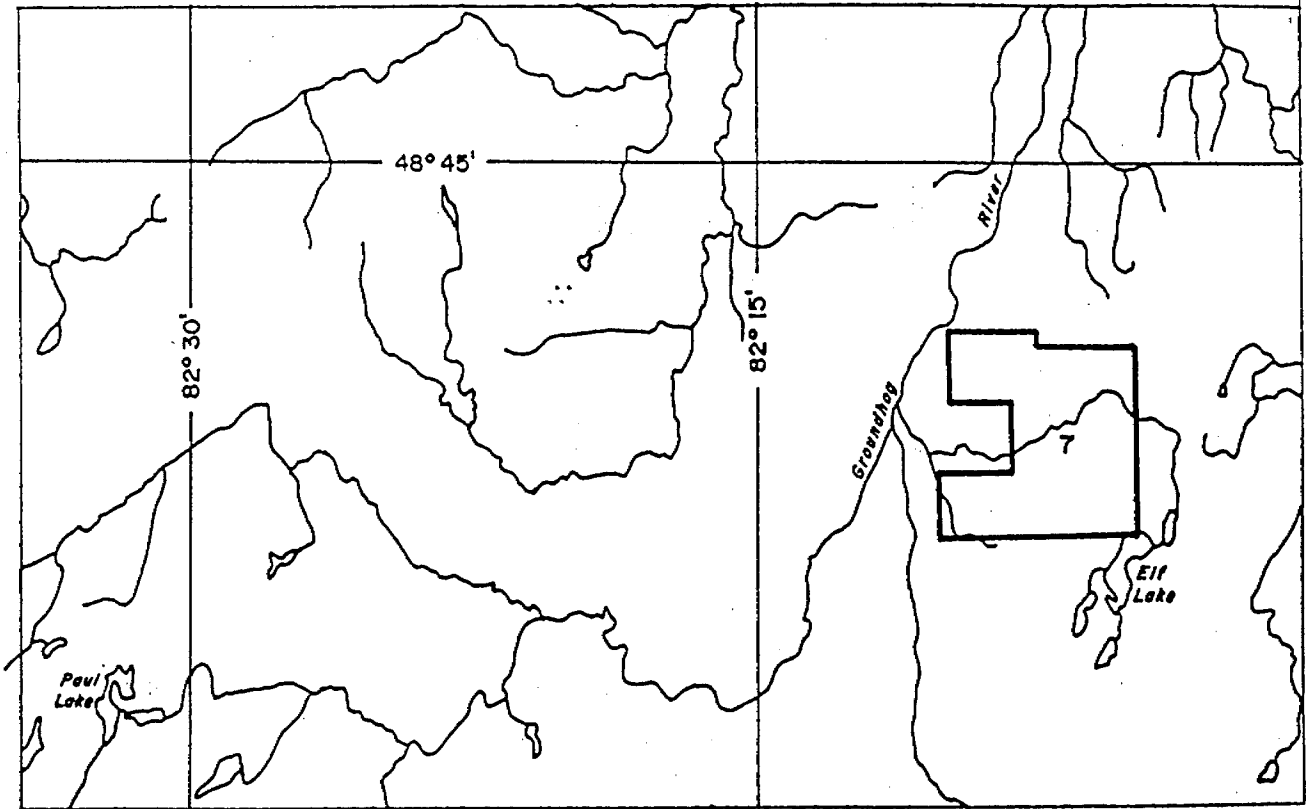
Block 4 is centred at approximate geographic latitude 48 degrees 20 minutes North, longitude 81 degrees 10 minutes West.

Block 5 is centred at approximate geographic latitude 48 degrees 10 minutes North, longitude 81 degrees 14 minutes West.

Block 6 is centred at approximate geographic latitude 48 degrees 07 minutes North, longitude 81 degrees 14 minutes West.

Block 7 is centred at approximate geographic latitude 48 degrees 41 minutes North, longitude 82 degrees 8 minutes West.





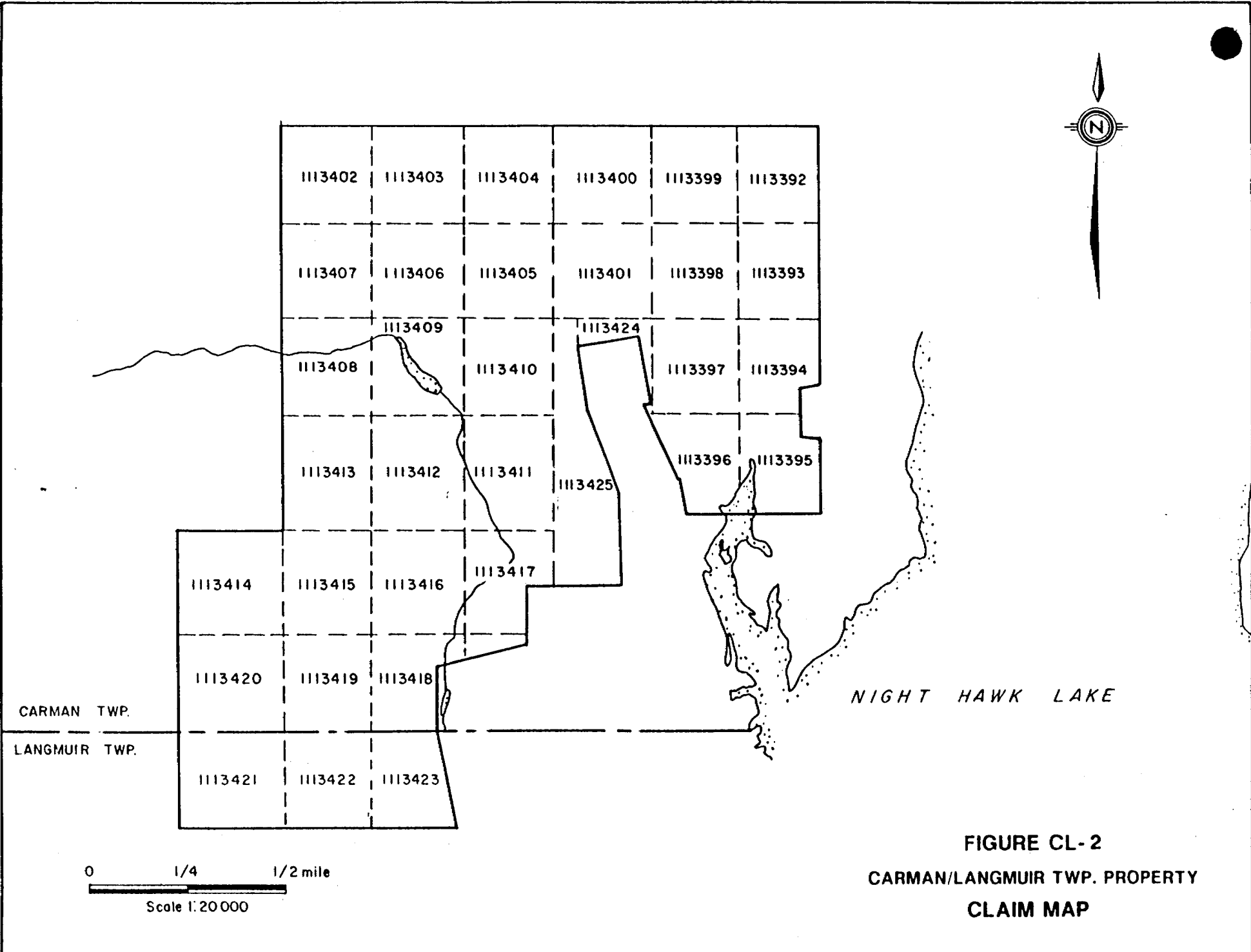


FIGURE CL-2
CARMAN/LANGMUIR TWP. PROPERTY
CLAIM MAP

Block 1
34 Claims
Carman/Langmuir Townships

P 1113392	Carman	P 1113409	Carman
P 1113393	Carman	P 1113410	Carman
P 1113394	Carman	P 1113411	Carman
P 1113395	Carman	P 1113412	Carman
P 1113396	Carman	P 1113413	Carman
P 1113397	Carman	P 1113414	Carman
P 1113398	Carman	P 1113415	Carman
P 1113399	Carman	P 1113416	Carman
P 1113400	Carman	P 1113417	Carman
P 1113401	Carman	P 1113418	Carman
P 1113402	Carman	P 1113419	Carman
P 1113403	Carman	P 1113420	Carman
P 1113404	Carman	P 1113421	Langmuir
P 1113405	Carman	P 1113422	Langmuir
P 1113406	Carman	P 1113423	Langmuir
P 1113407	Carman	P 1113424	Carman
P 1113408	Carman	P 1113425	Carman

PROPERTY LOCATION AND ACCESS

The Carman/Langmuir Townships property (Block 1) is located approximately 27 km southeast of the city of Timmins, Ontario.

The property consists of 34 contiguous unpatented mining claims, of which 31 occur within Carman Township and three occur in neighbouring Langmuir Township. The property is wholly-owned by TNI.

The southern boundary of the claim block lies approximately 300 ft. north of the TNI Langmuir property. The Langmuir No.1 and No.2 deposits occur 2 km and 2.5 km south of the property and the Redstone Ni deposit is 6km to the southwest.

Access to the Carman/Langmuir Township claims can be gained by taking the Springer Road south from South Porcupine and then southeast along the Langmuir Road. From the Langmuir Mine road at least two old trails lead east and northeast onto the claim group. Additional access to the property can be gained by boat on Night Hawk Lake which leads into Carman Bay. From there a trail leads to the northeast corner of the claims.

3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

An Aerospatiale A-Star 350 B helicopter, (C-GYHT), piloted by Roger Morrow, owned and operated by Peace Helicopters Limited, was used for the survey. Pierre Moisan of Aerodat acted as navigator and equipment operator. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey equipment was flown at a mean terrain clearance of 60 metres.

3.2 Equipment

3.2.1 VLF-EM System

The VLF-EM System was a Herz Totem 2 A. This instrument measures the total field and quadrature component of the selected frequency. The sensor was towed in a bird 30 metres below the helicopter.

3.2.2 Magnetometer System

The magnetometer employed a Scintrex Model VIW 2321 H8 cesium, optically pumped magnetometer sensor. The sensitivity of this instrument was 0.1 nanoTeslas. The sensor was towed in a bird 30 metres below the helicopter.

3.2.3 Magnetic Base Station

An IFG proton precession magnetometer was operated at the base of operations to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation.

3.2.4 Altimeter System

A King KRA 10 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

3.2.5 Tracking Camera

A Panasonic video flight path recording system was used to record the flight path on standard VHS format video tapes. The system was operated in continuous mode and the flight number, real time and manual fiducials were registered on the picture frame for cross-reference to the analog and digital data.

3.2.6 Analog Recorder

An RMS dot-Matrix recorder was used to display the data during the survey. In addition to manual and time fiducials, the following data was recorded:

Channel	Input	Scale
VLT	VLF-EM Total Field, Line	25 %/cm
VLQ	VLF-EM Quadrature, Line	25 %/cm
VOT	VLF-EM Total Field, Ortho	25 %/cm
VOQ	VLF-EM Quadrature, Ortho	25 %/cm
RALT	Radar Altimeter	100 ft./cm
MAGF	Magnetometer, fine	25 nT/cm
MAGC	Magnetometer, coarse	250 nT/cm

3.2.7 Digital Recorder

A DGR 33:16 data system recorded the survey on magnetic tape. Information recorded was as follows:

<u>Equipment</u>	<u>Recording Interval</u>
VLF-EM	0.20 seconds
Magnetometer	0.20 seconds
Altimeter	0.20 seconds
Nav System	0.20 seconds

3.2.8 Radar Positioning System

A Mini-Ranger MRS-III radar navigation system was used for both navigation and flight path recovery. Transponders sited at fixed locations were interrogated several times per second and the ranges from these points to the helicopter were measured to a high degree of accuracy. A navigational computer triangulated the position of the helicopter and provided the pilot with navigation information. The range/range data was recorded on magnetic tape for subsequent flight path determination.

4. DATA PRESENTATION

4.1 Base Map

A photomosaic base map at a scale of 1:10,000 was prepared from available photos from the National Photo Library (Ottawa).

4.2 Flight Path Map

The flight path was derived from the Mini-Ranger radar positioning system. The distance from the helicopter to two established reference locations was measured several times per second and the position of the helicopter was calculated by triangulation. It is estimated that the flight path is generally accurate to about 10 metres with respect to the topographic detail on the base map.

The flight lines have the time and the navigator's manual fiducials for cross reference to both analog and digital data.

4.3 Magnetics

4.3.1 Total Field Magnetic Contours Map

The magnetic data from the high sensitivity cesium magnetometer provided virtually a continuous magnetic reading when recording at 0.2 second intervals.

The system is also noise free for all practical purposes.

A sensitivity of 0.1 nanoTesla (nT) allows for the mapping of very small inflections in the magnetic field, resulting in a contour map that is equal to or exceeds ground data in quality and accuracy.

The aeromagnetic data was corrected for diurnal variations by adjustment with the digitally recorded base station magnetic values. No correction for regional variation was applied. The corrected data was interpolated onto a regular grid at a 25 metre true scale interval using an Akima spline technique. This grid provided the basis for threading the presented contours at a 2 nT interval.

The contoured aeromagnetic data has been presented on a Cronaflex copy of the base map with flight lines.

4.3.2 Vertical Gradient Contour Map

The vertical magnetic gradient was calculated from the total field magnetic data. Contoured at a 0.2 Nt/m interval, the data was presented on a cronaflex copy of the base map with flight lines.

4.4 VLF-EM Total Field Contours

The VLF data was interpolated onto a regular grid at a 25 metre true scale interval using an Akima spline technique. This grid provided the basis for threading the contours at a 2% interval.

The VLF-EM signal from the line transmitting station was compiled as contours in map form on cronaflex copies of the base map with flight lines.


The VLF stations used for Blocks 1, 2, 3 6 and 7 were NAA, Cutler Maine, broadcasting at 24.0 Khz, and NSS, Annapolis, Md., broadcasting at 21.4 kHz. NAA was used as the line transmitting station for Blocks 1, 3, 6 and 7. NSS was used as the orthogonal station for Blocks 1, 3, 6 and 7. NSS was used as the line transmitting station for Block 2 and NAA was used as the orthogonal station.

The VLF stations used for Blocks 4 and 5 were NLK, Seattle, Washington, broadcasting at 24.8 kHz, and NAA, Cutler, Maine, broadcasting at 24.0 kHz. NLK was used as the line transmitting station for Blocks 4 and 5 and NAA was used as the orthogonal station.

Respectfully submitted,

September 24, 1990

Adriana Carbone
Geologist



For
A Carbone

APPENDIX II
CERTIFICATE OF QUALIFICATIONS

I, Adriana Carbone, certify that:

1. I hold a B.Sc., in Geological Sciences from the University of Windsor, Ontario.
2. I reside at 2041 Banbury Crescent, in the Town of Oakville, Ontario.
3. I have been engaged in a professional role in the minerals industry in Canada for the past three years. I have been employed by Aerodat Limited since May 1990, and I currently hold a position as a Geologist.
4. I have been a member of the Prospectors' and Developers' Association since 1987.
5. The accompanying report was prepared from a review of the proprietary airborne geophysical survey flown by Aerodat Limited for Timmins Nickel. I have not personally visited the property.
6. I have no interest, direct or indirect, in the property described nor do I hold securities in Timmins Nickel.

Mississauga, Ontario
February 14, 1991

Signed,



Adriana Carbone
Geologist

APPENDIX I

PERSONNEL

FIELD

Flown September, 1990

Pilot Roger Morrow

Operator Pierre Moisan

OFFICE

Processing A. Carbone
 G. McDonald

Report A. Carbone

APPENDIX II

GENERAL INTERPRETIVE CONSIDERATIONS

Magnetics

A digital base station magnetometer was used to detect fluctuations in the magnetic field during flight times. The airborne magnetic data was levelled by removing these diurnal changes. The Total Field Magnetic map shows the levelled magnetic contours, uncorrected for regional variation.

The Calculated Vertical Gradient map shows contours of the magnetic gradient as calculated from the total field magnetic data. The zero contour shows changes in the magnetic lithologies and will coincide closely with geologic contacts assuming a steeply dipping interface. Thus this data may be used as a pseudo-geologic map.

VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is elliptically polarized in the vicinity of electrical conductors. The Herz Totem uses three coils in the X, Y, Z configuration to measure the total field and vertical quadrature component of the polarization ellipse.

The relatively high frequency of VLF (15-25) kHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce

measurable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground to depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically, it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field response is an indicator of the existence and position of a conductivity anomaly. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

The vertical quadrature component over steeply dipping sheet-like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the depth.

The amplitude of the quadrature response, as opposed to shape is function of target conductance and depth as well as the conductivity of the overburden and host rock. As the primary field travels down to the conductor through conductive material it is both attenuated and phase shifted in a negative sense. The secondary field produced by this altered field at the target also has an associated phase shift. This phase shift is positive and is larger for relatively poor conductors. This secondary field is attenuated and phase shifted in a negative sense during return travel to the surface. The net effect of these 3 phase shifts determine the phase of the secondary field sensed at the receiver.

A relatively poor conductor in resistive ground will yield a net positive phase shift. A relatively good conductor in more conductive ground will yield a net negative phase shift. A combination is possible whereby the net phase shift is zero and the response is purely in-phase with no quadrature component.

A net positive phase shift combined with the geometrical cross-over shape will lead to a positive quadrature response on the side of approach and a negative on the side of departure. A net negative phase shift would produce the reverse. A further sign reversal occurs with a 180 degree change in instrument orientation as occurs on reciprocal line headings. During digital processing of the quadrature data for map presentation this is corrected for by normalizing the sign to one of the flight line headings.



44025

Mining Act (Geophysical, Geological and Geochemical Surveys) Mining Lands Section, Mineral Development and Lands Branch

Type of Survey(s) AIRBORNE MAGNETIC & VLF SURVEY	Mining Division Langmuir A	Township or Area CARMAN & LANGMUIR
Recorded Holder(s) TIMMINS NICKEL INC.	Prospector's Licence No. 75306	Telephone No. (416) 367-9545
Address SUITE 205, 155 UNIVERSITY AVE, TORONTO, ONT M5H 3P7		
Survey Company ACRODAT LIMITED		
Name and Address of Author (of Geo-Technical Report) ADRIANA CARBONE c/o 3883 NASHUA DR. MISSISSAUGA, ONT L4V 1R3		Date of Survey (from & to) 3 9 90 3 9 90

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Electromagnetic	
	Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	Electromagnetic	
	Magnetometer	
	Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Other	
Total miles flown over claim(s).	64.3 km	
Date Oct 24/90	Recorded Holder or Agent (Signature) <i>[Signature]</i>	

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
P.	1113392	P.	1113409	P	1113423
	393		410		
	394		411		
	395		412		
	396		413		
	397		414		
	398		415		
	399		416		
	400		417		
	401		418		
	402		419		
	403		420		
	404	↓ LANGMUIR ↓			
	405	P	1113421		
	406		1113422		
	407				
	408				
Total number of mining claims covered by this report of work.				32	

RECEIVED
NOV 30 1990
MINING LANDS SECTION

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying
RICHARD SPRUWEL c/o M. V. WHITE & ASSOCIATES LTD., P.O. Box 1430, TIMMINS, ONT

Telephone No. **264-4709** Date **Oct 24/90** Certified By (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Recorded 2560	Date Recorded OCT. 25/90	Province Recorded Ontario
Date Approved as Recorded Feb 14/91	Provincial Manager, Mining Lands <i>[Signature]</i>	

RECEIVED
RECORDED
OCT 25 1990



Dec 30 Jan 29

Mining Act
Report of Work
 (Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) HARBORNE MAGNETIC VLF SURVEY	Mining Division PORCUPINE	Township or Area CARMAN TWP.
Recorded Holder(s) TIMMINS NICKEL INC.	2, 18774	Prospector's Licence No. T5306
Address SUITE 205, 155 UNIVERSITY AVE, TORONTO, ONT.		Telephone No. (416) 367-9545
Survey Company AERODAT, LIMITED		Date of Survey (from to) Day Mo Yr Day Mo Yr 3 9 90 3 9 90
Name and Address of Author (of Geo-Technical Report) ADRIANA CARBONE % 3883 NASHUA DR. MISSISSAUGA, ONT.		

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Other	
For each additional survey using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here RECEIVED NOV 30 1990 MINING LANDS SECTION	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	

Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Other	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
P	1113424				
R	1113425				
NOTE: DUE TO AN OVERSIGHT ON MY PART, I NEGLECTED TO INCLUDE THESE 2 CLAIMS IN IN A PREVIOUS REPORT OF WORK W9006:60525					
RECORDED					
NOV 30 1990					
Total number of mining claims covered by this report of work.					2.

Total miles flown over claim(s).
 Date **Nov 29/90** Recorded Holder or Agent (Signature) *R.M. Sprouke*

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying
RICHARD SPROUKE % M.V. WHITE & ASSOCIATES LTD. P.O. Box 1430
TIMMINS, ONT.
 Telephone No. **264 4909**
 Date **Nov 29/90** Certified By (Signature) *R.M. Sprouke*

For Office Use Only

"ACTG"

Total Days Cr. Recorded 160	Date Recorded Nov 30/90	Mining Recorder <i>Robert Benning</i>
	Date Approved as Recorded Feb 14/91	Provincial Manager, Mining Lands <i>Ray G. Schindler</i>

RECEIVED
NOV 30 1990
 G.W. (C) (P)

REFERENCES

WITHDRAWN FROM DISPOSITION

- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- MINING AND SURFACE RIGHTS

Desc	Order No.	Date	Disposition	File
Re-opened NRD 36 85				

action pending under surface rights withdrawn

NOTES

THIS TOWNSHIP LIES WITHIN THE MUNICIPALITY OF THE CITY OF FLODDING ON NIGHAWK LAKE TO THE CONTOUR ELEVATION 5' RESERVED TO ONT. HYDRO.



42A87N0210 2.13774 CARMAN

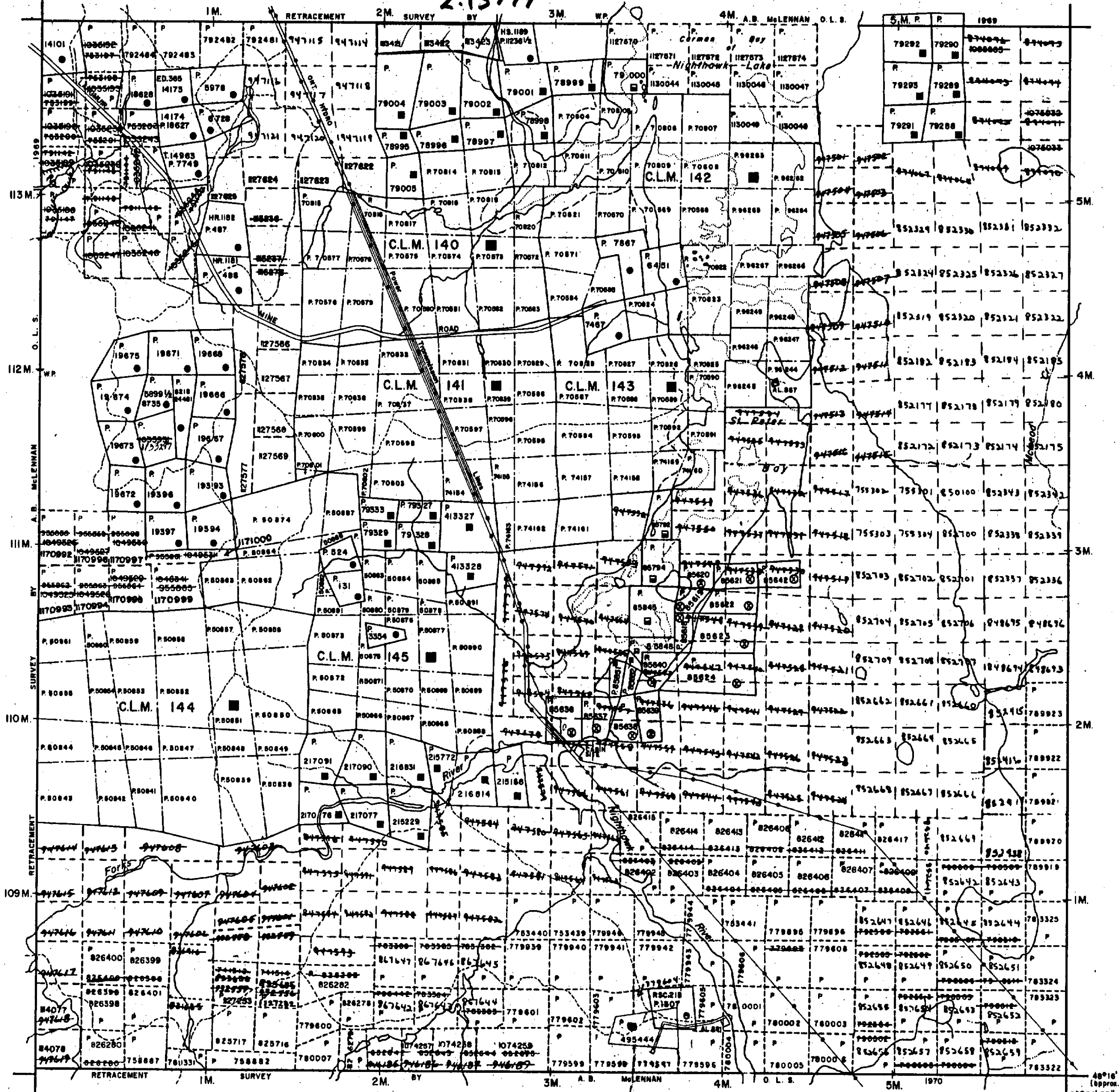
200

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE CLAIMING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING CORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

A.T.V.

CARMAN TP.

2.13774



FALLON TP.

LEGEND

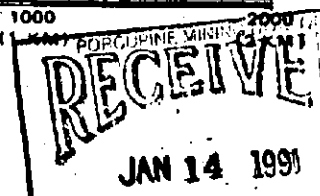
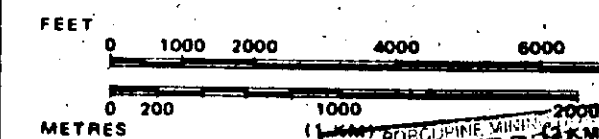
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 - LOT LINES
 - PARCEL BOUNDARY
 - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LAND

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS
" SURFACE RIGHTS ONLY
" MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
" SURFACE RIGHTS ONLY
" MINING RIGHTS ONLY
LICENCE OF OCCUPATION
ORDER-IN-COUNCIL
RESERVATION
CANCELLED
SAND & GRAVEL

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO 1913, VESTED IN ORIGINAL PATENTEE BY THE LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63.51

SCALE: 1 INCH = 40 CHAINS



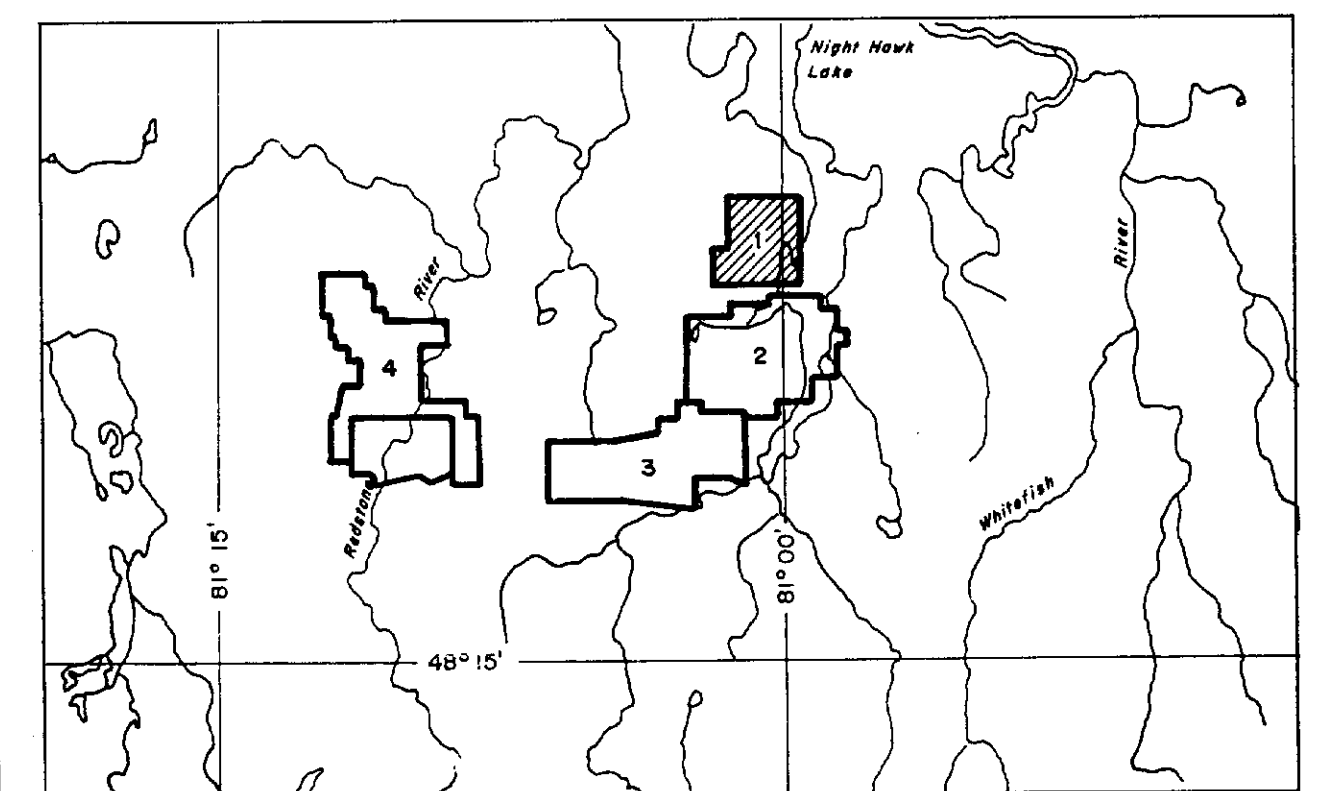
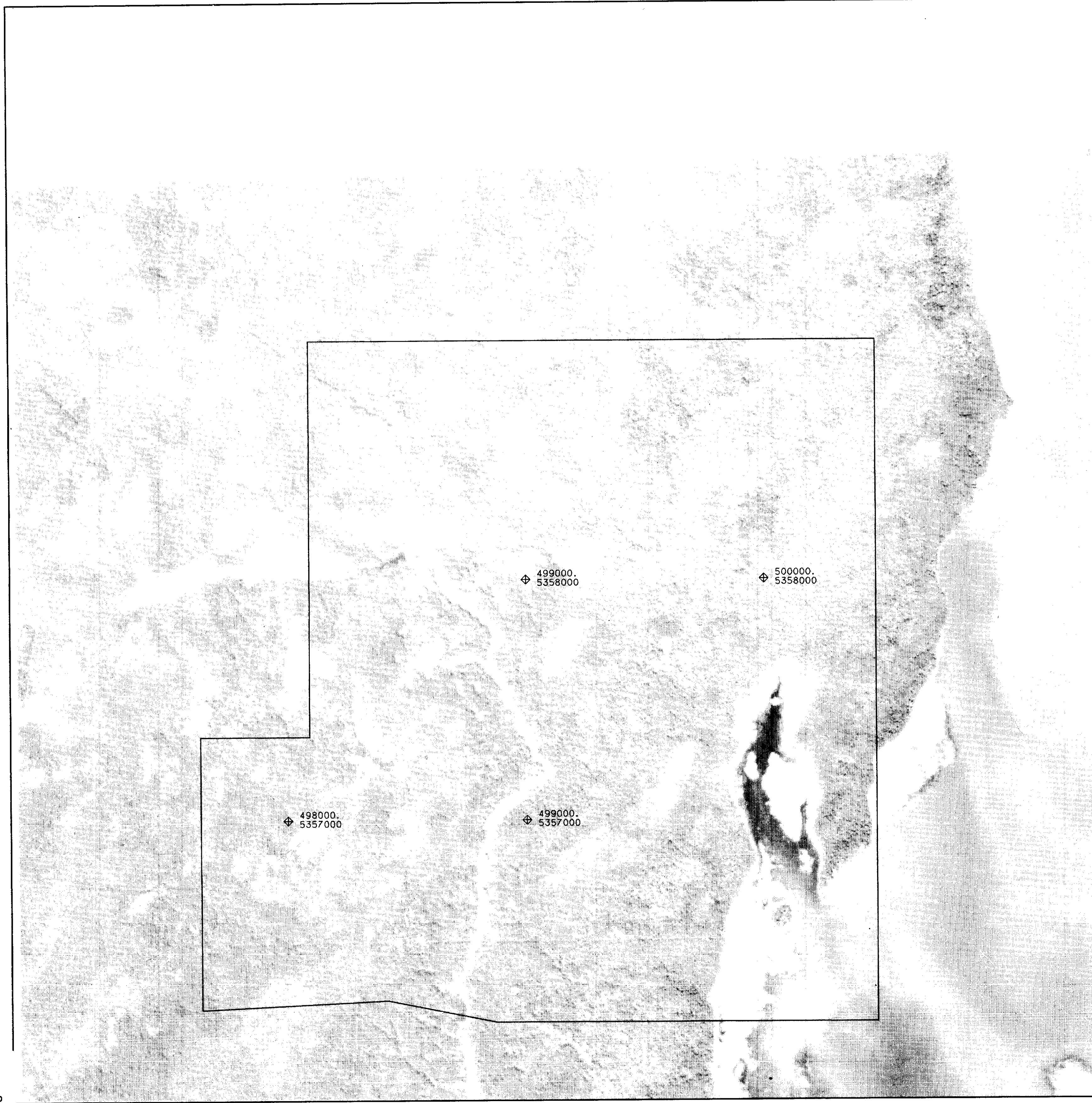
TOWNSHIP
LANGMUIR
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
COCHRANE



Date MARCH, 1985

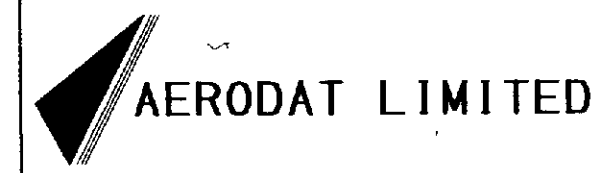
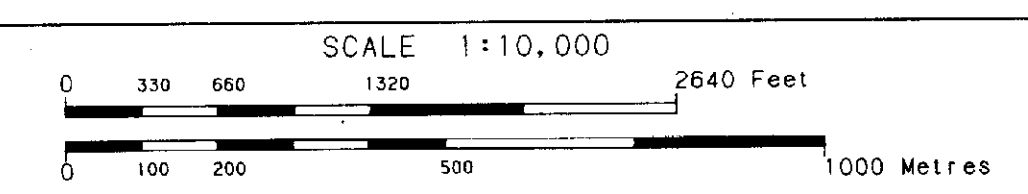
Number

G-32



TIMMINS NICKEL

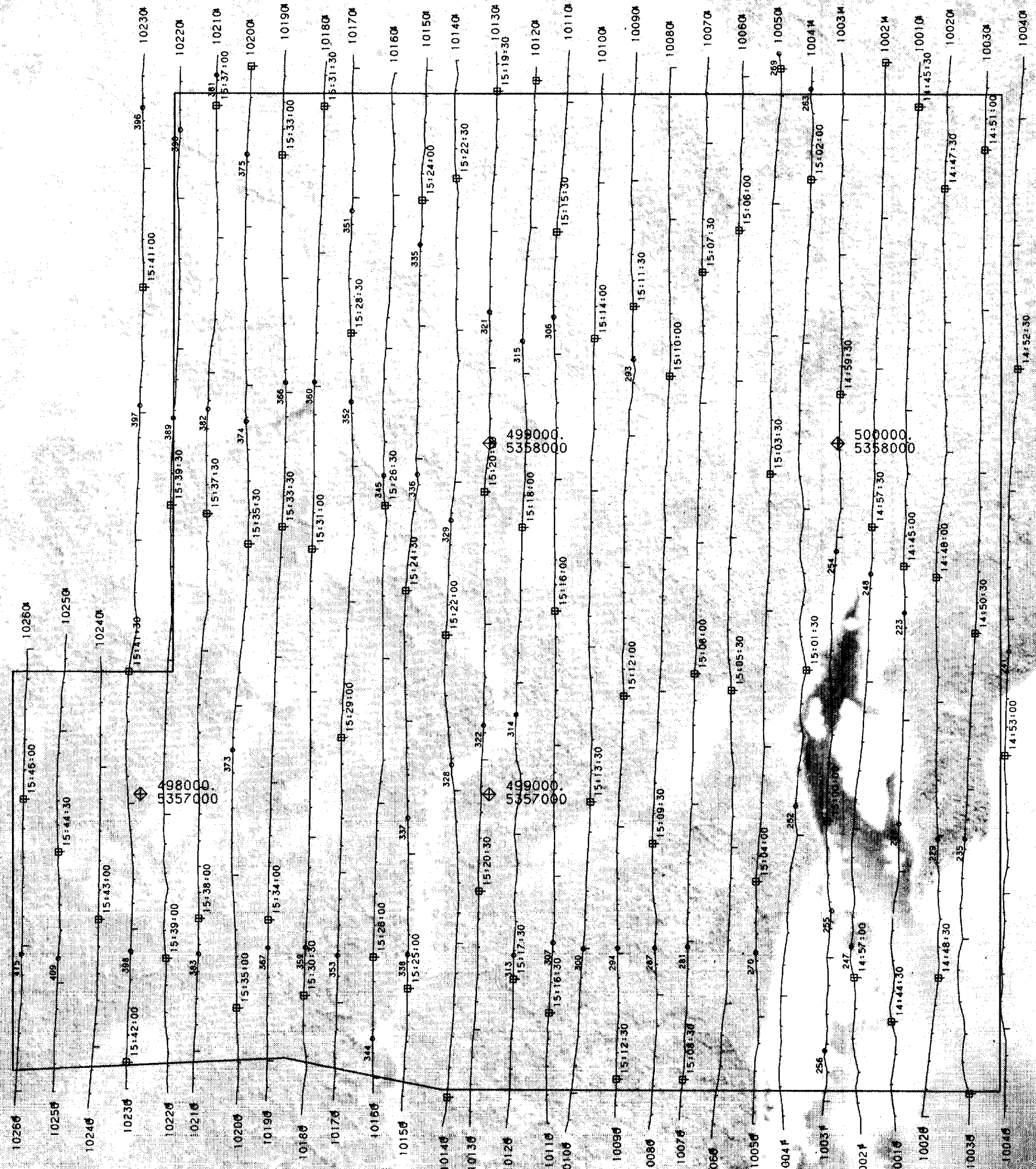
BASE MAP
2.13774
BLOCK 1
TIMMINS ONT



DATE: **SEPTEMBER 1990**
 NTS No: **42 A/6**
 MAP No: **1** J9071 - 1

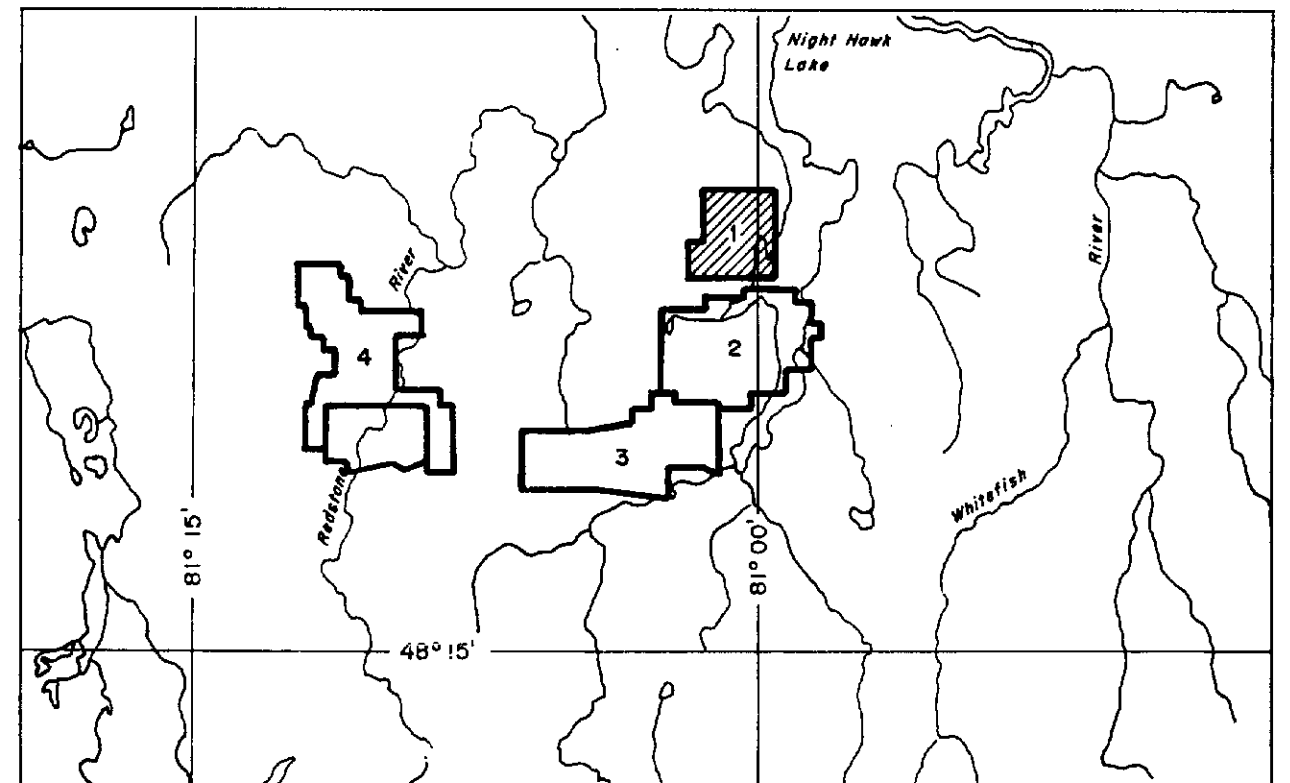


42A07NR0210 2.13774 CARMAN



Flight Path

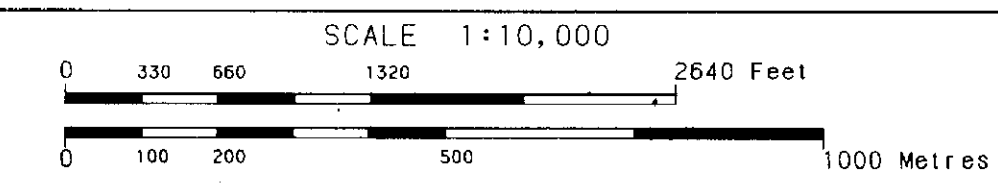
Navigation and recovery using a Motorola Mini-Ranger (MRS III) navigation system.
Average terrain clearance 60m
Average line spacing 100m



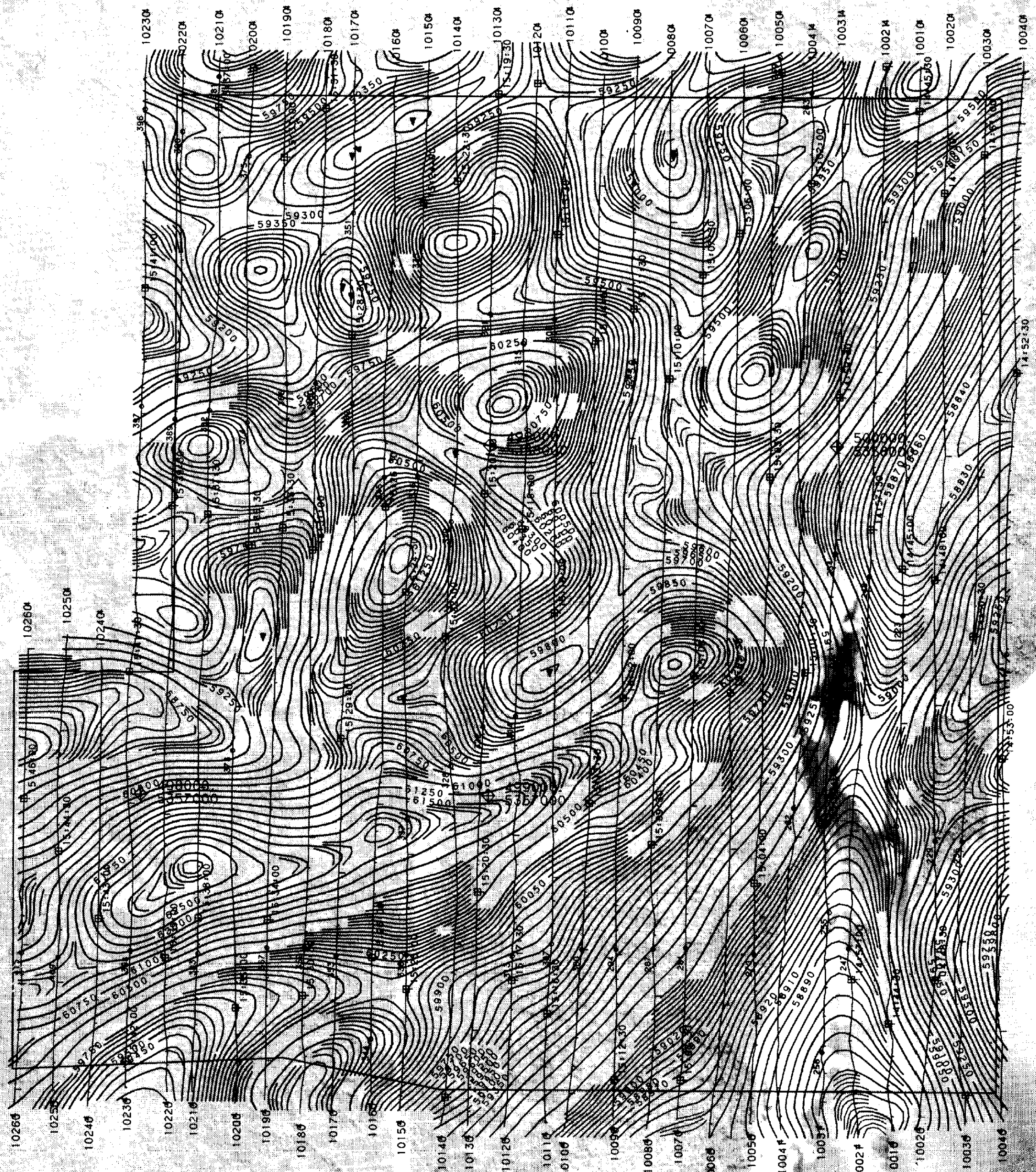
TIMMINS NICKEL

FLIGHT PATH **2.13774**

BLOCK 1
TIMMINS ONT



	DATE: SEPTEMBER 1990
	NTS No: 42 A/6
	MAP No: 2 J9071 - 1



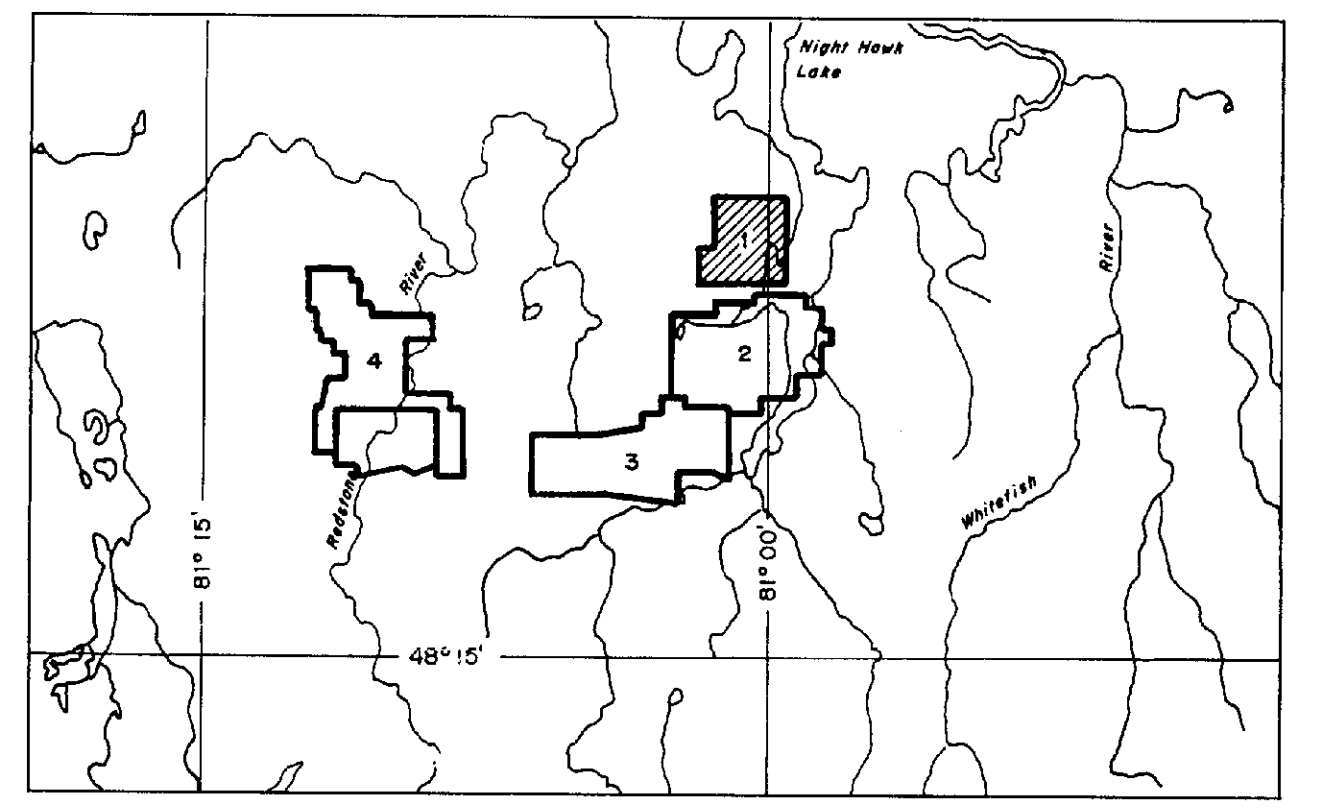
Flight Path

Navigation and recovery using a Motorola Mini-Ranger (MRS III) navigation system.
Average terrain clearance 60m
Average line spacing 100m

Magnetics

Total Field Magnetic Intensity Contours in nT.
Cesium high sensitivity magnetometer.
Sensor elevation 45m

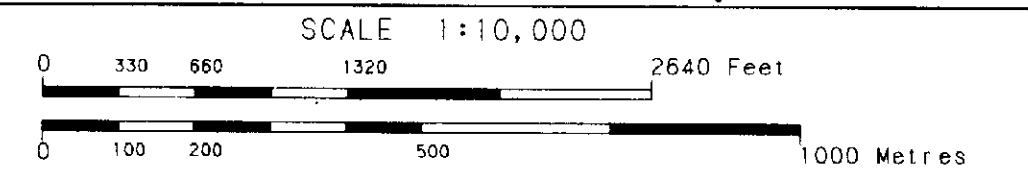
Map contours are multiples of those listed below
----- 2 nT
----- 10 nT
----- 50 nT
----- 250 nT
----- 1000 nT



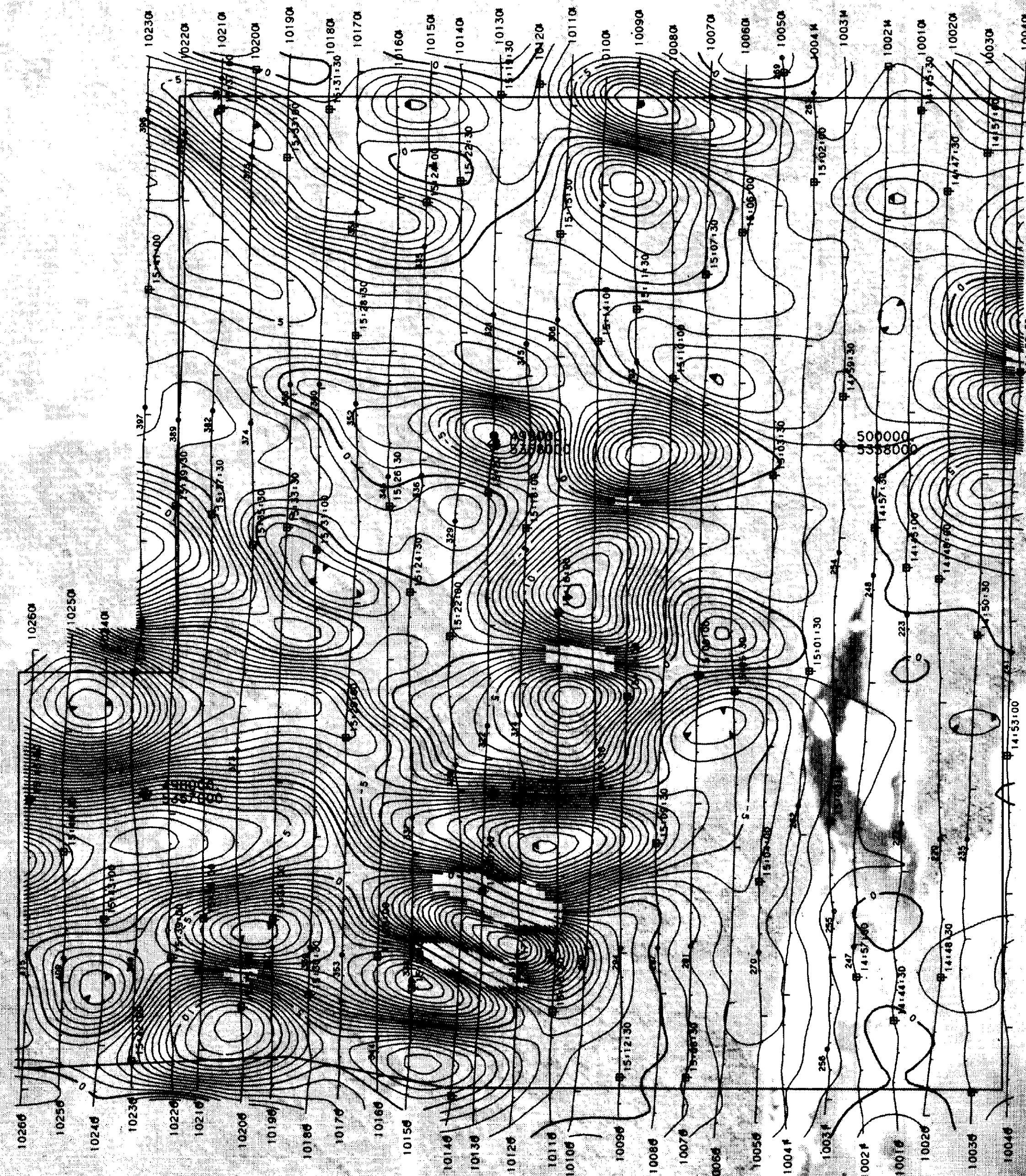
TIMMINS NICKEL

TOTAL FIELD MAGNETIC CONTOURS

BLOCK 1
TIMMINS ONT **2.13774**



DATE: SEPTEMBER 1990
NTS No: 42 A/6
MAP No: 3 J9071 - 1



Flight Path

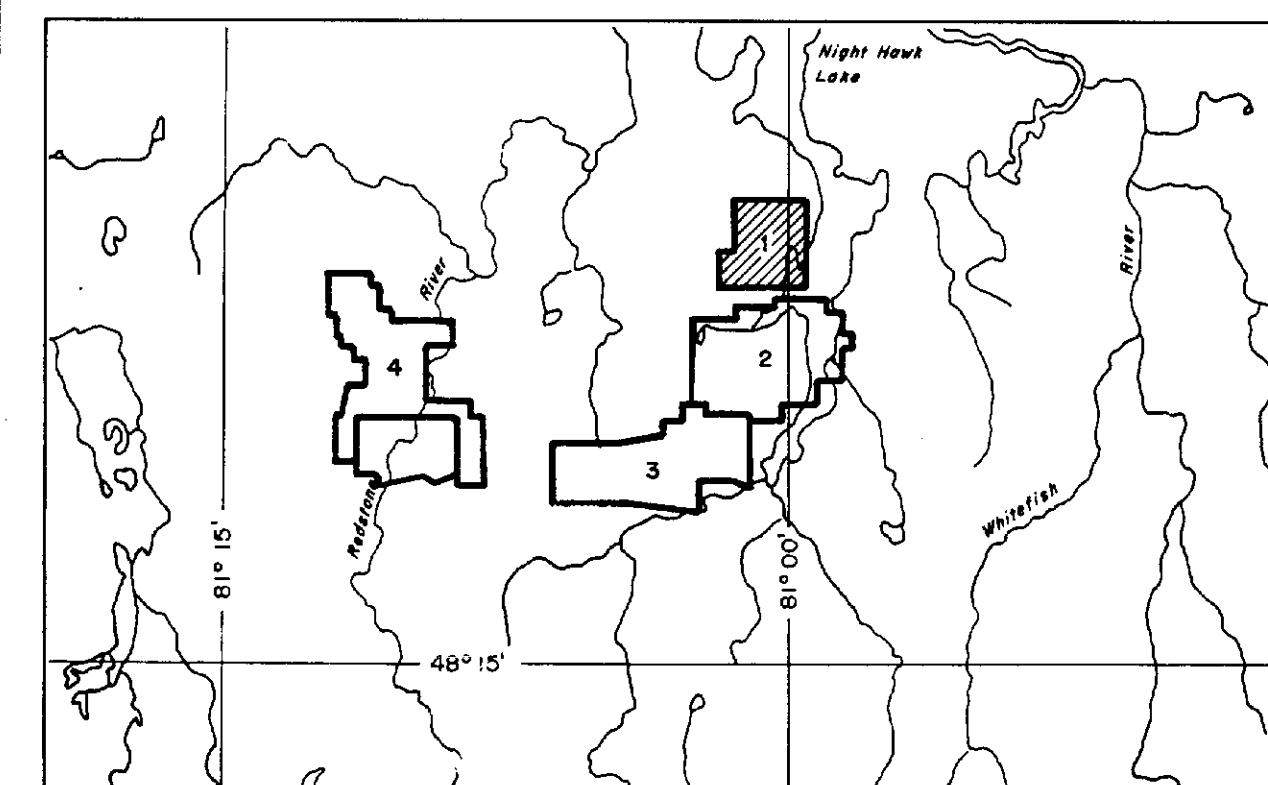
Navigation and recovery using a Motorola Mini-Ranger (MRS 111) navigation system.
 Average terrain clearance 60m
 Average line spacing 100m

VLF-EM

VLF-EM Total Field Intensity in percent.
 Station: NAA
 Cutler, Maine
 24.0 kHz
 Sensor elevation 45m

Map contours are multiples of those listed below

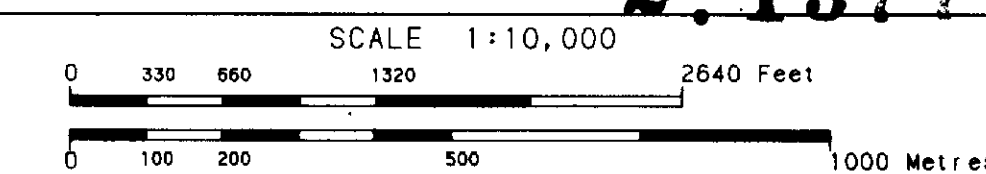
- 1 x
- 5 x
- 25 x
- 100 x



TIMMINS NICKEL

VLF-EM TOTAL FIELD CONTOURS (LINE CHANNEL)

BLOCK 1
 TIMMINS ONT **2.13774**



DATE: **SEPTEMBER 1990**

NTS No: **42 A/6**

MAP No: **5** J9071 - 1

