# **GEOPHYSICS REPORT**

ON THE

2.17718

## **CROSS LAKE / GOLDEN KNIGHT**

**JOINT VENTURE** 

**PROPERTY** 

DAN PATRIE EXPLORATION LTD. Dan Patrie May, 1997



# TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
SUMMARY AND RECOMMENDATIONS	1
LOCATION AND ACCESS	1
CLAIMS	2
REGIONAL GEOLOGY	2
PROPERTY GEOLOGY	3
PREVIOUS WORK	4
SURVEY PROCEDURE	8
FIELD METHOD	9
MAX-MIN SURVEY	9
INTERPRETATION	10
CONCLUSIONS AND RECOMMENDATIONS	11
REFERENCES	
CERTIFICATE OF QUALIFICATION	
LETTER OF AUTHORITY	
MAPS	



#### INTRODUCTION

During the month of March, 1997 a program of line cutting and geophysical surveying was conducted on the Sheraton and Bond Townships property of Cross Lake Minerals and Golden Knight Joint Venture.

The work consisted of a horizontal loop electromagnetic survey and was conducted by Dan Patrie Exploration Ltd. The survey was conducted to locate and investigate in detail the conductors detected by airborne surveys.

#### SUMMARY AND RECOMMENDATIONS

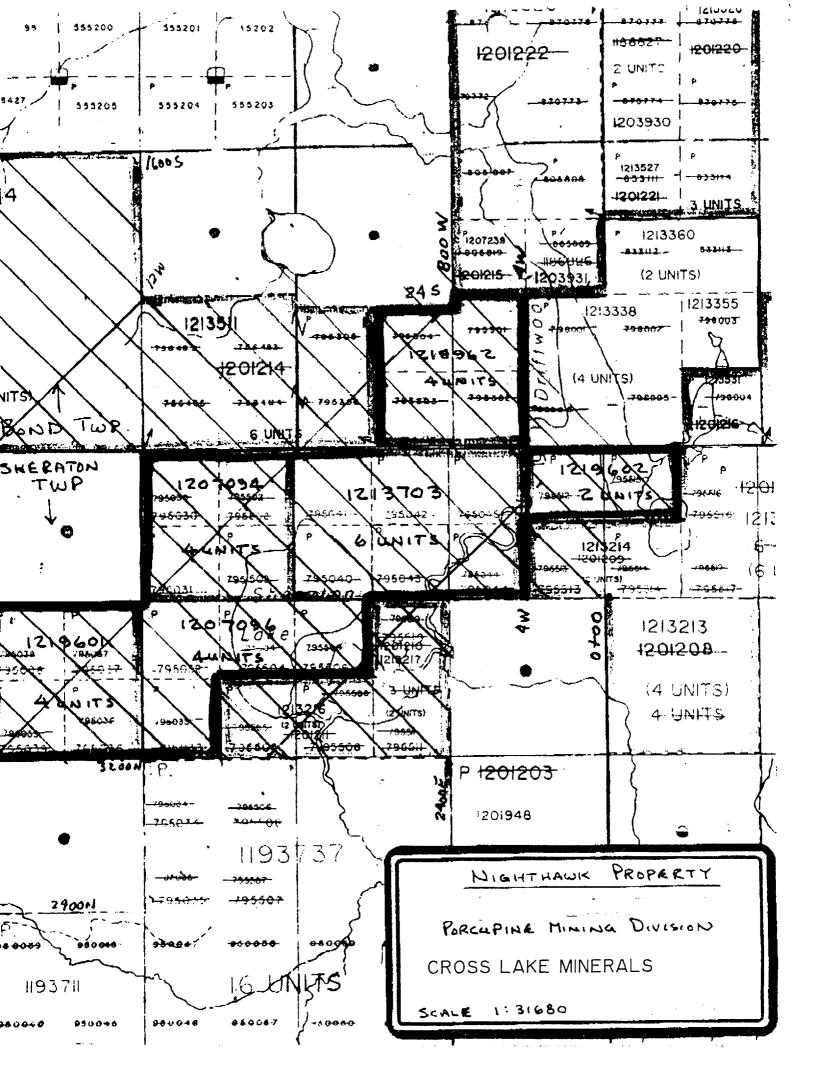
A geophysical survey was conducted on the Sheraton and Bond Townships property Cross Lake and Golden Knight Joint Venture. A total of 24 kms of horizontal loop electromagnetic data was collected. Although hampered by deep overburden, a wide zone of conductors was detected south of the baseline at 20+00 w to 24+00 w near the center of the grid. Highly conductive (50S), and relatively deep (40 - 50 m), this zone has a maximum width of 150 m, and a total strike length of 0.5 km. Several other weaker conductors were detected and the possibility exists for undetected, deep conductors.

In light of the extensive previous drilling, careful consideration is recommended before redrilling of the previous zones is conducted. Induced Polarization is strongly recommended for detecting disseminated mineralization which may be favorable for gold mineralization.

#### LOCATION AND ACCESS

The property is located on the boundary of Sheraton and Bond Townships in the Porcupine Mining District of Ontario.

The property is approximately 45 kilometers east of Timmins, Ontario. Access to the property was by snowmobile down a trail south from the end of Bond Township Road 1, by snowmobile down the Driftwood River, or by trail 4 miles east from the Gibson Lake Road in Macklem Township. Both roads are accessed from Highway 101.



#### **CLAIMS**

The property consists of 13 unpatented mining claims, 45 units all held by Coss Lake Minerals Ltd. The claim numbers, all of which are in the Porcupine Mining District are:

CLAIM NUMBER	# OF UNITS	TOWNSHIP
1210601	4	SHERATON
1207096	4	SHERATON
1207094	4	SHERATON
1218703	6	SHERATON
1219601	4	SHERATON
1219602	2	SHERATON
1213216	2	SHERATON
1213217	2	SHERATON
1218962	4	BOND
1213338	4	BOND
1213360	2	BOND
1213355	1	BOND
1213511	6	BOND

# **REGIONAL GEOLOGY**

The following is an excerpt from Bowen (1986):

"The general geology of the Porcupine Area is characteristic of the Abitibi "Greenstone Belt," Figure 1. The rocks are Early Precambrian (Archean), in age and are composed of a series of metavolcanic flows and pyroclastics with interbedded sedimentary units. Late stage cyclic clastic sedimentation mark the end of volcanism in the area. Mafic

sills, dikes and plugs cut most of the volcanic units and may be related to volcanic activity. Felsic hypabyssal stocks and dikes are also common and may or may not be related to felsic batholithic complexes that intruded the supracrustal rocks either contemporaneously with or after the main volcanic-sedimentary events.

Tectonic events generally associated with felsic plutonism have caused the supracrustal rocks to be isoclinally folded about a general east-west axis. Subsequent faulting both parallel to sub-parallel to the fold axis and roughly perpendicular to the fold axis is prominently displayed throughout the area. The Destor-Porcupine Fault Zone that extends from Timmins to Destor Township, Quebec, passes through southern Stock Township, (the location of the St. Andrews Goldfield mine and current St. Andrews-Esso Minerals exploration project), just to the north of Bond Township. The fault zone passes approximately 6 miles north of the property of Unigold Resources Ltd. This structure has long been associated with gold deposition in the Timmins area and now in the Harker-Holloway Area east of Matheson and at the Aguibelle Mine in Destor Township, Quebec.

Early to Middle Archean diabase dikes trending roughly north-south and Late Archean olivine diabase dikes trending northeast-southwest cut all rocks in the area."

#### PROPERTY GEOLOGY

The following is an excerpt from Bowen (1986):

"From the examination of drill logs the geology underlying the Unigold claims appears to be near the interface of two volcanic formations. So far, research into this area has been insufficient to catagorize the formations with confidence due to poor outcrop exposure.

The volcanic rocks are moderate to steeply dipping and are mafic to felsic in composition. They are under layered with carbonaceous and argillaceous mudstones and wackes. Mineralogy is varied with pyrite, sphalerite, chalcopyrite, galena and pyrrhotite being reported in drill logs. Gold assays in the 0.01 oz/ton range and lead-zinc values over

3% and as high as 6.76% over lengths of 5 to 10 feet have also been reported in assessment files and by Mr. don McKinnon, prospector, who assayed the diamond drill core for gold. At least, one major north-south fault has been mapped through the property. A number of north-south diabase dikes indicate several zones of weakness were once present. Southwest to northeast trending late olivine diabase dikes bracket the north and south boundaries of the property and partially transect the central part of the property. Porphyritic units have also been reported in diamond drill logs."

## **PREVIOUS WORK**

From Bowen (1986):

"Work done previously and submitted for assessment credit was reviewed at the Resident Geologist's Office, Timmins. Data Series maps P.2072 and P.2074, Hunt and Deosaran (1980 a and b), compiled work previous to 1979. Previous government work included geological surveys of Sheraton Township and the surrounding area, Berry (1940), and Bond Township and the surrounding area, Laird (1931). A geological compilation map was subsequently produced, Pyke et al (1972). Sheraton and Bond Townships were included in a 40 township airborne magnetic and electromagnetic survey conducted by the Ontario Geological Survey and published in 1984 (OGS 1984 a and b).

The previous exploration work will be described in rough chronological order as assessment file records indicate. The early history of the porcupine mining camp is well documented. Timmins is celebrating 75 years of existence in 1986. Encompassed within a 100 mile radius of Sheraton and Bond Townships, two major gold camps (Timmins and Kirkland Lake), a major base metal mine (Kidd Creek), and several smaller base metal mines (KamKotia, Jameland, Canidan Jamieson, Alexo, Texmont and Langmuir), as well as talc and asbestos deposits located in Penhorwood and Munro Townships.

Stairs Property - Hollinger Option

In 1960 Hollinger diamond drilled 5 holes in Sheraton Township into a magnetic

high area ½ mile south of claim 795517 and intersected a pyritic-jasper-epidote horizon hosted in mafic pillow basalts, massive and sulpheritic flows cut by felsic dykes. Carbonate alteration and quartz veining were also reported, however, no assays were reported.

Selco Exploration Co., Ltd.

In 1966 Selco Exploration Co., Ltd., held two claim blocks in Sheraton and Bond Townships. On a two claim block in Sheraton Township, which encompasses claim 795039 of the property which was owned by Unigold Resources, one hole was drilled into brecciated felsic metavolcanics with some feldspar porphyry and anderite portions and several disseminated to massive pyritic zones. Two intervals of 5 and 4 feet respectively returned 0.01 oz/ton gold assays.

In Bond Township, Selco also held a 4 claim block which encompasses claims 795302, 796004 to 796006 inclusive that belonged to Unigold Resources. Five diamond drill holes were put down and intersected what appears to be an interface between volcanic flow units. The volcanics are described as being felsic to intermediate in commotion and interbedded with greywacke and graphitic slate units. Feldspar porphyry and diabase dikes cut the metavolcanics and metasediments. Silicification carbonatization sulfidization are commonly mentioned. Sulphides are pyrite, chalcopyrite, sphalerite, marcasite and galena. Drill hole 10 returned 0.11% zinc and 0.7% lead over 5.5 feet. These drill holes were relatively shallow and no depths below about 300 feet vertically were ascertained.

Seaway Copper Mines Limited-Republic Ores and Mining Corporation Limited

In 1971 Seaway Copper Mines Limited acquired 32 unpatented mining claims encompassing the northeastern part of the area concerned in this report including claims: not in good standing any longer.

These claims were staked by Mr. Donald McKinnon in 1969. In 1970 Republic Ores and Mining Corporation Limited optioned the claims and completed ground magnetometer and horizontal loop electromagnetic surveys over the entire property. In 1971 an 80% interest was acquired by Mr. Gordon Leliever from Republic who, as president of Seaway Copper Mines Limited, sold his interest to Seaway for \$15 000.00 and a work commitment. These claims were staked by Mr. McKinnon based on his examination of the Selco core logs where he noted the numerous mention of sulphides and some interesting assays.

Seaway Copper Mines Limited acquired additional ground and in 1982 began a diamond drill program to test the targets outlined by Republic's geophysical survey.

The same general geology encountered in the Selco drilling was found during Seaway's drill program. These rocks were generally intermediate to mafic metavolcanics with some coarser flows, sills and dikes. Some tuffaceous horizons and slates, possibly interflow metasedimentary units were also cored. Felsic porphyritic dikes cut the metavolcanics and metasediments. Breccia zones, interpreted to be flow tops and bottoms were mineralized with chalcopyrite, sphalerite, pyrite and galena. This mineralization was possibly due to inhalative action of hydrothermal fluids percolating along the volcanic flow interfaces. The presence of graphite is indicative of this type of subaqueous activity. Assays ranged from 6.76% zinc over 10 feet to some combined lead-zinc values of 1.16 over 5.2 feet and 3.18% over 7.7 feet.

#### Cominco Limited

In 1971 Cominco Limited flew an airborne magnetic survey over the southwestern part of the present claim group and staked 14 claims encompassing the presently owned Cross Lake claims.

Subsequent electromagnetic work revealed a conductor and one diamond drill hole was drilled in it. The drill log reveals that a pyrite horizon was the conductor and formed along the contact with felsic metavolcanic tuffs and argillites and greywackes. No assays were reported and no further work was recorded.

Ontario Paper Company Limited and Geomont Exploration Company Limited

In 1975 Ontario Paper Company Limited held a large block of claims in Sheraton and Bond Townships. The property encompasses claims 756486 to 756488 inclusive that belonged to Unigold Resources claims. They contracted Geomont Exploration Company Limited to perform geological mapping, ground magnetometer and induced polarization/resistivity surveys over the property. While several interesting IP anomalies were turned up no follow up work was recorded by this company.

Noranda Exploration Company Limited

In 1977 Noranda held a claim block 1/4 mile west of the subject claims in Sheraton Township and conducted ground magnetometer and electromagnetic surveys over the claims. The conductors delineated coincided with those drilled by Cominco in 1974 which were pyrite zones along the contract between felsic metavolcanics and metasediments.

In 1984 Noranda had Aerodat Limited conduct an airborne geophysical survey with their system over western Bond and part of Sheraton Townships. Numerous conductors were delineated and Noranda was evaluating those responses by ground geophysical follow up and proposed diamond drilling.

Sumach Resources Inc.

Sumach contracted H. Ferderber Geophysics to conduct an airborne geophysical survey over the property in 1985.

Since this survey has been conducted Sumach Resources has been optioned the claims to Unigold Resources." now the property is held by Cross Lake Minerals Ltd.

#### SURVEY PROCEDURE

#### MAX-MIN II

#### **THEORY**

The Max-Min II is a frequency domain, horizontal loop electromagnetic (HLEM) system, based on measuring the response of conductors to a transmitted, time varying electromagnetic field.

The transmitted, or primary EM field is a sinusoidally varying field at any of five different frequencies. This field induces an electromotive force, (emf), or voltage, in any conductor through which the field passes. This is defined by:

0E.d1 = -0/t (the Faraday Induction Principle)

where E is the electric field strength in volts/meter (and so 0E.d1 is the emf around a closed loop) and 0 is the magnetic flux through the conductor loop. This emf causes a "secondary" current to flow in the conductor in turn generating a secondary electromagnetic field.

This changing secondary field induces an emf in the receiver coil (by the Faraday law) at the same frequency, but which differs from the primary field in magnitude and phase. The difference in phase (the phase angle) is a function of the conductance of the conductor(s), both the target and the overburden and hoist rock. The magnitude of the secondary is also dependant on the conductance, and also on the dimensions, depth, and geometry of the target, as well as on the interference from overburden and the host rock.

These two parameters (phase angle and magnitude) are measures by measuring the strength of the secondary field in two components: the real field or that part "in phase" with the primary filed; and the imaginary field, or that part in "quadrature" or 90 degrees out of phase from the primary field.

The magnitude and phase angle of the response is also a function of the frequency of the primary field. A higher frequency field generates a stronger response to weaker conductors, but a lower frequency tends to pass through weak conductors and penetrate to a greater depth. The lower frequency also tends to energize the full thickness of a conductor, and gives a better measure of its true conductivity-thickness product (conductance).

For these reasons two or more frequencies are usually used: the lower for penetration and accurate measure of good conductors, and the higher frequency for strong response to weak conductors.

Distinction between conductive targets, overburden, and host rock responses are made by studying the shape of the secondary field, and the difference in the frequency shape.

The transmitted primary field also creates an emf in the receive coil, which is much stronger than the secondary, and which must be corrected for by the receiver. This is done by electronically creating an emf in the receiver, whose magnitude is determined by the distance from receiver to transmitter as set on the receiver, and whose phase is derived from the receiver via an interconnecting wire.

#### FIELD METHOD

The Max-Min II survey was carried out in the "maximum coupled", mode (horizontal coplanar). The transmitter and receiver are carried in line down the survey line separated by a constant distance (in this case 200m), with the receiver leading. Three transmitter frequencies were used: 444Hz, 888Hz, and 1777Hz. The transmitter and receiver are connected by a cable, for phase reference and operator communication.

#### PERSONNEL AND EQUIPMENT

Dan Patrie Exploration Ltd. provided all the personnel to complete the geophysical surveying, and the line cutting.

Due to the proximity of the grid to Timmins, the geophysical crews were accommodated in either Timmins or Night Hawk Trailer Park.

#### MAX MIN SURVEY

The survey consisted of 24 line kilometers of three-frequency horizontal loop (Slingram Style) electromagnetic with a 200m coil separation.

#### INTERPRETATION

The electromagnetic survey detected most of the conductors located by the airborne EM survey, but suffered from a lack of depth penetration. This was caused by the great depth of the overburden. In the central of the grid, the overburden is more than 60m thick in some places.

The strongest EM response is a 50m to 150m wide zone of conductors between line 20+00 W and 24+00 W.

The weak conductors on the edge of the zone are interesting because they may be caused by disseminated metallic sulphides, which would be favorable environments for gold mineralization.

The strong conductors in this zone have conductivity-thickness of approximately 50S.

In summary there appears to be a wide sheared zone with numerous veins of massive and disseminated mineralization. It is possible that the conductor are being lost at depth, and a deeper detecting ground EM system will be necessary to locate it.

Most of the conductors are relatively weak and deep. Some of them may be due to bedrock troughs, but most are definitely weak bedrock conductors, with conductivity thickness of approximately 5 to 10S.

#### CONCLUSIONS AND RECOMMENDATIONS

It is often the case that a zone of massive mineralization has only weak gold concentrations but disseminated mineralization to one side of the zone or the other have high concentrations. These disseminated zones would not be detectable by Max-Min through the overburden depth encountered on this grid, and may not be conductive enough even for sensitive time-domain EM systems.

Disseminated mineralization is an excellent target for the induced polarization method, and this survey is recommended for further exploration on this property. According to Bowen (1986), Ontario Paper Company and Geomont Exploration did detect "interesting" IP anomalies near the property, but apparently no follow-up diamond drilling was conducted.

A reconnaissance induced polarization survey should be conducted over most of the grid, to research for disseminated mineralization missed by the previous surveys. A program of IP is recommended.

Diamond drill testing of any of the already detected conductors should be preceded by a more powerful, more sensitive electromagnetic survey. To gain the depth and sensitivity required would require a fixed transmitter, time domain EM survey, using either a Crone PEM, a Geonics EM37 or Lamontagne UTEM. This EM survey should be directed at and around the areas of each of the previously detected conductors. The increased spatial and geometric resolution of fixed transmitter TDEM systems will collect much more information about the conductors than is currently known.

Respectfully submitted,

Darlate

Dan Patrie,

Geology and Geophysics Technologist

## CERTIFICATE OF QUALIFICATION

I, Daniel F, Patrie do hereby certify that:

1. I am a Geology and Geophysics Technologist and reside at 190, Highway 17 West, Massey,

Ontario, Canada, P.O. Box 45, P0P 1P0,

2. I graduated from Cambrian College of Applied Arts and Technology with a one year certificate

in Geophysics,

3. I have practised my profession continuously since that time and prior to that, since 1972, I have

been an active prospector,

4. This report is based on a personnel review of Provincial, Federal and some assessment reports as

well as interpretation of field observations undertaken on the Cross Lake Property, Bond

Township, Porcupine, Mining Division, Ontario and was present during the program,

Daniel F, Patrie

Ou Pato

Geology and Geophysics Technologist

May 30, 1997

#### LETTER OF CONSENT

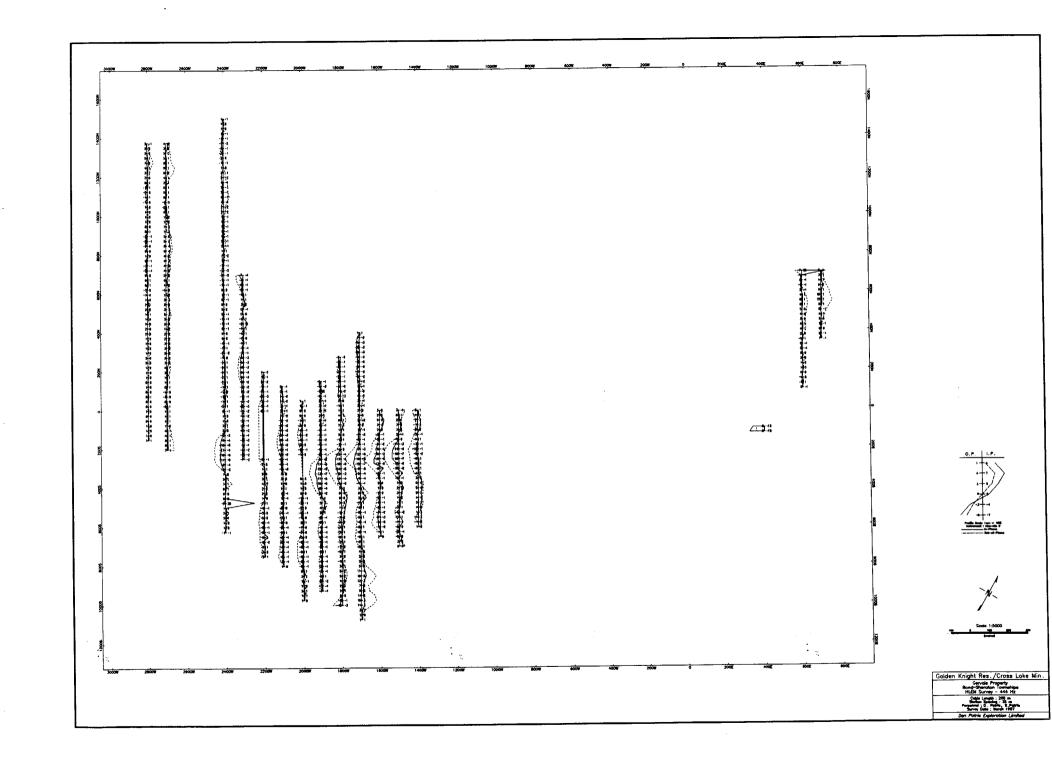
I, Daniel F, Patrie, Massey, Ontario, do hereby consent to Totem Sciences Inc., using in whole or in part my report on the Cross Lake Property in a prospectus of statement of material facts or for filing with government regulatory bodies as deemed necessary.

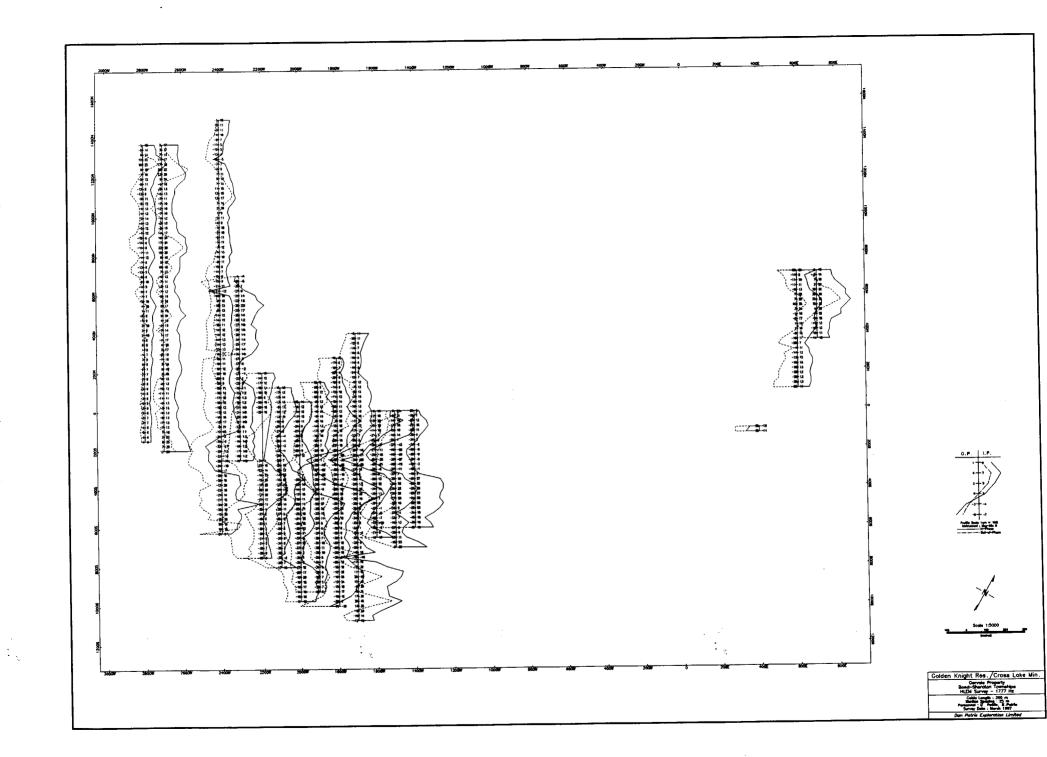
Octob

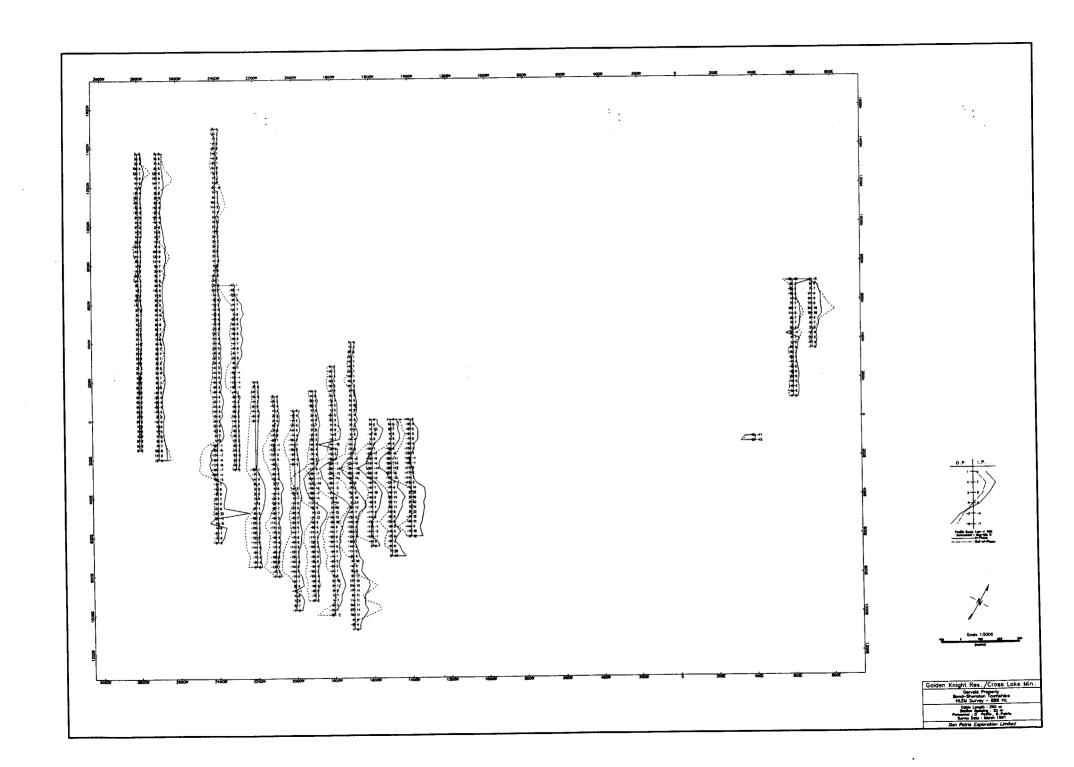
Dated at Massey, Ontario, this 30<sup>th</sup> day of May, 1997, in the District of Sudbury.

Daniel F, Patrie

Geology and Geophysics Technologist









Ministry of Northern Development and Mines

# Declaration of Assessment Work Performed on Mining Land

Transaction Number & E | Assessment Files

and Mines Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990 1 66(3) of the Mining Act. Under section & of the vork and correspond with the mining land holder. Personal information collected on this form is obtained under the authority of Northern Development and Mines, 6th Floor, Mining Act, the information is a public record The Questions about this 933 Ramsey Lake Ro 900 ....., use form 0240. - F Instructions: Recorded holder(s) (Attach a list if necessary) Client Number ke Minerals Telephone Number Add ax Number Client Numbe Telephone Number Address Fax Number Type of work performed: Check ( > ) and report on only ONE of the following groups for this declaration. Rehabilitation Physical: drilling, stripping, Geotechnical: prospecting, surveys, assays and work under section 18 (regs) trenching and associated assays Office Use Commodity Work Type Line Cutting Total \$ Value of Work Claimed MAX- Min NTS Reference Dates Work Performed ownship/Area Mining Division Global Positioning System Data (if available) Bond & ShenA Resident Geologist M or G-Plan Number District Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - obtain a work permit from the withinty of realural nesources as required,
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- provide the copies of your technical record - include two copies of your technical report. Person or companies who prepared the technical report (Attach a list if necessary) 705 Addr Name ax Number Address Telephone Number 11 Name Fax Number Address ORCUPINE MINING DIVISION have not indicated from your credits are adetect, condite will be Victorian if Streamon notice vit to Certification by Recorded Holder or Agent do hereby certify that I have personal knowledge of the fac Atrie forth in this Declaration of Assessment Work having caused the work to be performed or witness or after its completion and, to the best of my knowledge, the annexed report is true. June Signature of Becorded Holder or Agent TO PRIVOPA TO GREET Telephone Number Agent's Address

k was done on other eligible		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Yalus of work essigned to other mining claims.	Bank. Valu to be distrit at a future t
aled	on the claim map.		200 926	NA	\$24,000	\$2,826
,	TB 7827	16 ha	\$26, 825	\$24,000	0	0
•	1234587	12	0	8 4,000	0	\$4,882
•	1234568	2	\$ 6, 892	-	0	0-
	1219602	3	110	800	1600	800
2	1207094	4	4,000	1600	1600	800
3	1207096	4	4,000	1600	2880	320
4	1219601	4	4800	1600	2000	0
5	1213703	6	0	2400	0	. 0
8	12/8962	4	0	1600		0
7	12/32/6	2	2400	800	1600	0
8	1213717	2	0	800	0	0
9	- }	2	0	800		0
10		1	0 .	400	0	0
11	1	2	0	800	0	0
18		6	3200	2400	800	0
13	161911	1	640	400	240	
	7.00	4	480	1600	0	0
14	4 1213338			1		
4	<b>a</b>					1024
	6				0 8720	Indica and annual
I, _		Patrie Int Full Name) Assessment Wo ork was done.	rk Regulation 6/96		t the above work on contiguous claims	1920 redits are eligible under the sor for application to Revised  Tuly 21/93
I, suith Eight	bsection 7 (1) of the ctaim where the we passure of Recorded Holder.  Instructions for come of the credits come of the credits come wish to prioritize 1. Credits 2.	Assessment Woork was done.  or Agent Authorized  cutting back ere laimed in this de the deletion of co	in Writing  dits that are not a scienation may be contained in the contain	approved.  Bank first, followed the claims lister the claims liste	check ( > ) in the b	redits are eligible under the property of the
I, suith Eight	bsection 7 (1) of the ctaim where the we passure of Recorded Holder.  Instructions for come of the credits come of the credits come wish to prioritize 1. Credits 2.	Assessment Woork was done.  or Agent Authorized  cutting back ere laimed in this de the deletion of co	in Writing  dits that are not a scienation may be contained in the contain	approved.  Bank first, followed the claims lister the claims liste	check ( > ) in the b	redits are eligible under the property of the
I, suith Eight	bsection 7 (1) of the ctaim where the we passure of Recorded Holder.  Instructions for come of the credits come of the credits come wish to prioritize 1. Credits 2.	Assessment Woork was done.  or Agent Authorized  cutting back ere laimed in this de the deletion of co	in Writing  dits that are not a scienation may be contained in the contain	approved.  Bank first, followed the claims lister the claims liste	check ( ) in the b	redits are eligible under the property of the
I, suith Eight	bsection 7 (1) of the ctaim where the we passure of Recorded Holder.  Instructions for come of the credits come of the credits come wish to prioritize 1. Credits 2.	Assessment Woork was done.  or Agent Authorized  cutting back ere laimed in this de the deletion of co	in Writing  dits that are not a scienation may be contained in the contain	approved.  Bank first, followed the claims lister the claims liste	check ( > ) in the b	redits are eligible under the property of the
I. sul the sign of sig	bsection 7 (1) of the ctaim where the we chair where the we chair of Recorded Holder.  Instructions for come of the credits come of the credits come wish to prioritize 1. Credits Cre	Assessment Woork was done.  or Appril Authorized cutting back crestained in this desired are to be considered are to be considered.	in Writing  dits that are not a scienation may be contacted that the contact back from the Exit back equally on cut back equally on cut back as prioriti.	approved.  Sank first, followed the claims lister all claims listered on the attach	check ( ) in the bod by option 2 or 3 of and in this declaration and appendix or as	redits are eligible under the property of the
I. sul the sign of sig	bsection 7 (1) of the ctaim where the we mature of Recorded Holder.  Instructions for come of the credits come wish to prioritize 1. Credits C	Assessment Woork was done.  or Agent Authorized  cutting back cre taimed in this de the deletion of c edits are to be of	in Writing  dits that are not a claration may be coredits:  sut back from the Exact back equally on cut back as prioriti.	approved.  Sank first, followed the claims lister all claims listered on the attach	check ( ) in the bod by option 2 or 3 of and in this declaration and appendix or as	redits are eligible under the property of the
I. sul the sign of sig	Dance F. F. P. Description 7 (1) of the claim where the we pasture of Recorded Holder.  Instructions for come of the credits come of the credits come wish to prioritize 1. Cr. 2. Cr. 3. Cr. 4. Cr. 4	Assessment Woork was done.  or Appril Authorized  cutting back cre laimed in this de the deletion of co edits are to be of redits are to be of	in Writing  dits that are not a claration may be coredits:  sut back from the Exact back equally on cut back as prioriti.	approved.  Sank first, followed the claims lister all claims listered on the attach	check ( ) in the bod by option 2 or 3 of and in this declaration and appendix or as	redits are eligible under the property of the
I. sul the sign of sig	bsection 7 (1) of the ctaim where the we mature of Recorded Holder.  Instructions for come of the credits come wish to prioritize 1. Credits C	Assessment Woork was done.  or Appril Authorized  cutting back cre laimed in this de the deletion of co edits are to be of redits are to be of	in Writing  dits that are not a claration may be coredits:  sut back from the Exact back equally on cut back as prioriti.	approved.  Sank first, followed the claims lister all claims listered on the attach	check ( ) in the bod by option 2 or 3 of and in this declaration and appendix or as	redits are eligible under the property of the Bank first.



Ministry of Northern Development and Mines

# Statement of Costs for Assessment Credit

Transaction Number (office use)
49760.00459

June 6/92

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of V Depending on the type of v of hours/days worked, met metres of grid line, numbe	vork, list the number res of drilling, kilo-	Cost Per Unit of work	Total Cost	
Line Cutting	24 K	ns	A300	7,200	
MAX- Min	24 K	1	250	6,000	
Report	1		2500	2,500	
Associated Costs (e.g. supplie	o mobilization and de	mobilization)			
Associated Costs (e.g. supplie				4	
Mobilization 2	Trucks And	men		4500	
Trans	sportation Costs				
ATV and snow	machines			(100	
Food	and Lodging Costs				
Meals and ro			1220		
		Total Value o	f Assessment Work	19520	
Calculations of Filing Discoun  1. Work filed within two years of 2. If work is filed after two year Value of Assessment Work.	of performance is claime s and up to five years a	after performance	, it can only be claime	ed at 50% of the Total	
TOTAL VALUE OF ASSESS	MENT WORK	× 0.50 =	Total \$ value of worked claims		
Note: - Work older than 5 years is no - A recorded holder may be request for verification and/or c Minister may reject all or part o	uired to verify expendit orrection/clarification. If	verification and/o	nis statement of costs or correction/clarification	within 45 days of a on is not made, the	
Certification verifying costs:  I, Daniel F. Pate (please print full name)	do herek	y certify, that the	e amounts shown are	as accurate as may	
(please print full name) reasonably be determined and	the costs were incurred	while conducting	assessment work on	the lands indicated or	
to make this contification.	of very form as (records	Agent d holder, agent, or state	company position with signing	authority) l am authorize	

Ministry of Northern Development and Mines Ministère du Développement du Nord et des Mines



October 20, 1997

CROSS LAKE MINERALS LTD. 210-800 WEST PENDER ST. VANCOUVER, B.C. V6C-2V6 Geoscience Assessment Office 933 Ramsey Lake Road 6th Floor Sudbury, Ontario P3E 6B5

Telephone: (888) 415-9846 Fax: (705) 670-5863

Dear Sir or Madam:

Submission Number: 2.17718

Status

Subject: Transaction Number(s):

W9760.00459 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jerome\_l@torv05.ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY

Blair Kite

Supervisor, Geoscience Assessment Office

Mining Lands Section

# **Work Report Assessment Results**

**Submission Number:** 

2.17718

Date Correspondence Sent: October 20, 1997

Assessor:Lucille Jerome

Transaction Number

First Claim

Number

Township(s) / Area(s)

Status

**Approval Date** 

W9760.00459

SHERATON, BOND

**Deemed Approval** 

September 09, 1997

Section:

14 Geophysical EM

**Correspondence to:** 

Resident Geologist South Porcupine, ON

Assessment Files Library

Sudbury, ON

Recorded Holder(s) and/or Agent(s):

**Daniel Patrie** 

MASSEY, ONTARIO

CROSS LAKE MINERALS LTD.

VANCOUVER, B.C.

FROM DISPOSITION

SHTS ONLY

IGHTS ONLY

D SURFACE RIGHTS

Date Disposition File

STOCK TOWNSHIP

1207249 725000 735006 <del>75</del>7844 <del>757843</del> 611467 North 1207243 <del>125908</del> 725907 :57845 16/846 (4 UNITS) -6H**46**0 ---<del>--</del> \[ \] 6 UNITS PLA 724102 724097 617623 1207250 690480 1207251 -849995 -84988 1207|254 1176361 76364 3 1206782 -157852 - 157882 <del>757849</del> - 4. 1<del>1850</del> 724098 1 724101 757879 757876 F 1176362 P H76363 724094 611465-(4 UHTS) 866915 849999 (4 UNITS) (8 Units) UNITS) <del>10</del>9048I 3840606 <del>757878</del> **757877** 7 - 4+00 724093 851934 851933 (C 111L2) 1090483 1207/256 - rittwc od 724956 <del>-726312</del> -- <del>651935</del>-1207164 - <del>530616</del> (16 UNTS) 988750 (4 (INITS) 8 UNITS . . .... - - --- - - ----· <del>46 4 2 5 3</del> 1207241 / 4 <del>9 5 9</del> 530618 <del>5306</del>17 1207345 (16 UNITS) 724963 <del>726315</del> 726316 724966 <del>829299 - 812085</del> <del>530623</del> 530624 724964 6 UNITS 628219 724970 724971 725474 725475 72496 <del>725472</del> <del>725473</del> 725470 725471 740874 - 740875 1207257 <del>1190958</del> 248 /597120 628220 | 597119 724973 <del>72497</del>e 724977 725478 725479 725480 140877 12C 1 63 530 632 <del>53063+</del> 6 UNITED  $\circ$ 1207165 1207245 964252 (6 UNITS) 624424 <del>724982</del> <del>7249</del>74 -<del>724978</del> 624.423 <del>725486</del> <del>725487</del> 725485 725483 725484 -72498+ (8 UNITS) (16 JUITS) 624426 725488 624 425 725490 TOWNSHIP -7<del>25493</del>-725492 (6 UH S) 1212675 764801 124993 124993 725452 1219377 1212672 7 1212679 1212678 1212677 44199 1465147 764803 -<del>724022</del> 724027 764804 72<del>4019</del> '2 Uti TS) [4 U: 13] <sup>/</sup>-<del>013817</del> (4 UNITO 628058 628057 628059 3 866958 724014 725463 72402€ 724018 1213525 724023 724013 1212671 724010 1212673 1201224 (16 UNITS) 553489 <del>-8677+14</del> +<del>026414</del> <del>99650</del> 724011 7<del>25466</del> 724017 724025 -724016 724015 7 2 4 0 H (8 UNITS) (8 UNITS) (553495 553490 -+<del>1472</del> - <del>-+167787</del> 555192 <del>726382</del> 726384 725500 <del>72550+</del> <del>7268</del>7 2 UNITS 1212674 2 (NTS) 924206 524207 924208 924201 424204 ,24203 726384 <del>726385</del> 126391 726390 726387 -726388 726389 P<sub>1213528</sub> 1213526 1204341 +201219 . s10179 - 87077 555202 555199 555200 555201 سير 7<del>26398</del> <del>726396</del> 726-397--7<del>2639</del> 7<del>26398</del> 72 <del>~ 393</del> 1<del>20|220</del> 1201222 -H90957 726395 : UN! (16 UNITS) (Id UNITS) <del>-870774-</del> |\_\_\_<del>870775</del>-555427 / 726406 726407 726 402 726445 72<del>6404</del> <del>-7264</del>€ 1203930 E UNITY 1213527 -833114 #<del>05</del>808 1213512 1<del>20|22|</del> 3 UNITS 1213360 307239 833113 833112 (2 UNITS) 1201215 0 6 UNIT 1213\$32 756486 <del>756487</del> 79600 12135/1 \\_>' 1201762 1203820 -736482 756483 1201217 1 5 (8 UNITS) 120|2|4 4 UN 'S. 1128970 (16 UNITS) 7<del>56489</del> 7<del>56488</del>-14201218-<del>79530</del>3 795306 -7-56484 1 Gibson Lake JNITS) 6 UNI 8 9 10 11 12 2.17718 EM SHERATON TOWNSHIP

A STATE OF THE STA

HIGHWAY AND ROUTE No OTHER HCA: 3 \_\_\_\_\_\_ TRALLS SURVEYED LINES TOWNSHIPS, BASE LINES, ETC LOTS MINING CLAIMS, PARCELS ETC. UNSURVEYED LINES LOT LINES PARLEL BOUNDARY MINING CLAIMS FTC RAILWAY AND RIGHT OF WAY UTILITY LINES NOT PERENNIAL STREAM FLOODING OR FLOODING RIGHTS SUBDIVISION OR COMPOSITE PLAN 30.77797 T ----RESERVATIONS ORIGINAL SHORELINE CE 3 MARSH OR MUSKEG MINES TRAVERSE MONUMENT DISPOSITION OF CROWN LANDS TYPE OF DOCUMENT PATENT, SURFACE & MINING HIGHTS " SURFACE PIGHTS ONLY. , MINING RIGHTS ONLY .. RESERVATION CANCELLED SAND & GRAVE NOTE: MINING RIGHTS IN FACTELS PATENTED PRIOR TO MACH 1913 VESTED IN ORIGIN PATEN LE BY THE PUB LANDS ACT RIS & 1970 CF 1860 SE 53 SUBSEC SCALE 1 20 300 NOTES TURFACE RIGHTS ONLY WITHDRAWN FROM BY ORDER NO. WP 12/37 NER DATEL MAY 2/37 SECTION 35, THE MINING ACT,R.S.O. 1990 TOWNSHIP BOND M N.R ADMINISTRATIVE DISTRICT TAMMAS MINING DIVISION PORQUEINE LAND TITLES / REGISTA, DIVISION COCHRANE Vinistry of Ministry of 🤟 🧢 inem Development and Mines Resources Cmailo Date SEFTSHBER 1936

LEGEND

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

MACKLE

42A07NE0032 2.17718 BOND

orang di sentang kanggarang kanggarang mengang perunggarang di sentang perunggarang perunggarang di sentang di

--- MINING AND SURFACE RIGHT 3 RE-OPENED UNDER SECTION 35 OF THE MINING ACT, R.S.O. 990 ORDER NO. 0-P-13/97 NER CATED MAY 16/97, ORDER COMES INTO EFFECT AT 8AM STD TIME,

AREAS WITHDRAWM FROM DISTUSTION

M.+ S. - MINING AND SURFACE RIGHTS

M.A.O. - MINING RIGHTS ONLY C F.O. - SUMFACE RIGHTS ONLY

Mark Mark

-- MINING AND SURFACE RIGHTS RE-OPENED INDER SECTION 35 OF THE MINING ACT, R.S.O. 19 ORDER NO. 0-P 15/97 NFR DATED MAY 26/97, ORDER COMES INTO EFFECT AT BAM STD TIME, JUNE 10, 1997.

1213271 1213533 1213703 6 UNIT Gibson) //12/2°4469 1207094 🗸 (4 UNIF I) (4 UNITS) 1213270 1204193 1213213 (E UNITS) 122)44,68 1501508 '20**7259** Z 8 UNITS (2 JNITS) 795032 ₩ ₩<del>95504</del> \ 795 (\$\in\_\) (4 UNITS) 7777777 121960: (4 UNITS) 1223886 1223891 4 UNITS .1193756-4 111115 (4 UNITS) (4 UNITS) (2 UNITS) 2-UNITS . -<del>|20|**%**|-</del> -<del>26505</del> |<del>-7∖05509</del>-<del>795039</del> 7<del>95036</del> <del>795033</del>-1 1223887 1223892 P 1201203 1218052 107237 1213278 (2 UNITS) 201948 .∌8875 TOLLING 6 1223888 4-UNITS 4 UNITS (4 UNITS) (2 UNITS) -<del>795035</del> -<del>79550</del>7 1223894 !223889 <sup>120|3</sup>27 1213273 (2 UNITS) 1223895 1223890 PTINU 8 950046 950045 960057 ⊲≎0<del>060</del> (8 UNITS) (12 UNITS) 4 JN 15 121327 **∳**50**044** 12:3274 12:3275 1201325 1201343 35 00 42 9500 43 9500 50 9500 55 950062 950067 A LIMITS (B UNITS) . - ∪', TS) F. 1177240 <del>322332</del> <del>822311</del> 822390 1197738 1213219 950051 950054- 950066 | 2 UNIT 201342 822416 <del>822417</del> BIHIU 8 (4-UNITS) nd644 | 1**-201329** #8637.3/ Research 1282418. 950064 953465 (8 UNITS) (16 UNITS) (6 UNITS)  $\bigcirc$ \* 7822375 / 832375 1201330 P 213218 H<del>8259</del>1 -1182582-119367. / 822420 822431 1201922 1213567 1201344 1193708 1218058 E UNITS (8 UNITS) 1 <del>822432</del> 16 UNITS) SUMIS (12 UNITS) IO UNIT (6 UNITS) (12 UNITS) <del>822397</del> <del>858|55</del> -85816G-ਜ<del>8€ ′35</del> 121\$568 858I64 -<del>359|64</del>-92343 1201163 (4 UNITS) 1213209 1193710 (4 UNITS) (4 UNITS) 12 UNIT - 923435 N - 923436- 234 7 ع,8ر. ن. ا (8 UNITS) (\$TINU BI) Lake 751023 -4011 x. (BUNITS 996013 579. 581 12

TIMMINS FOUNDSMIP

AND PS.BAC U

MIN NO CLAIMS ET.

NON PERENNIAL STREEM

FER IT JANG OR FLOODING PIGHTS THE VISION CITICAMPOSITE PLAN

UTI THE LINES

FISER. MINURU

MANES

ORIGINAL SHOTELINE

THE LEASE MONOMENT

TYPE OF DOCUMENT

PATENT SUPPACE & MINING

MINING BIGHTU

NOTE: MINING RIGHTY IN PARCE SPATE EDPRIOR TO COL

SCALE 1 TO STA

NoTH

THIS TWE IS SUBJECT TO FORES ACTIVITED IN 1904 05 FURTHER INFORMATION ON FILE.

ELECTIFICATION AVEC HIS ELECTIVE

TO NE IP

TIMMINS

CK BY AL OCT 28186

MINING DIVISION

M N.S ADMINISTRATIVE DISTRICT

NOIS VIO YATE BARN VILLETT SEE.

Whistry of

LICENCE OF OCCUPATION

HOMBOO MI FADRO

SAND & GRAVEL ...

PECERVATION.

CANCELLED

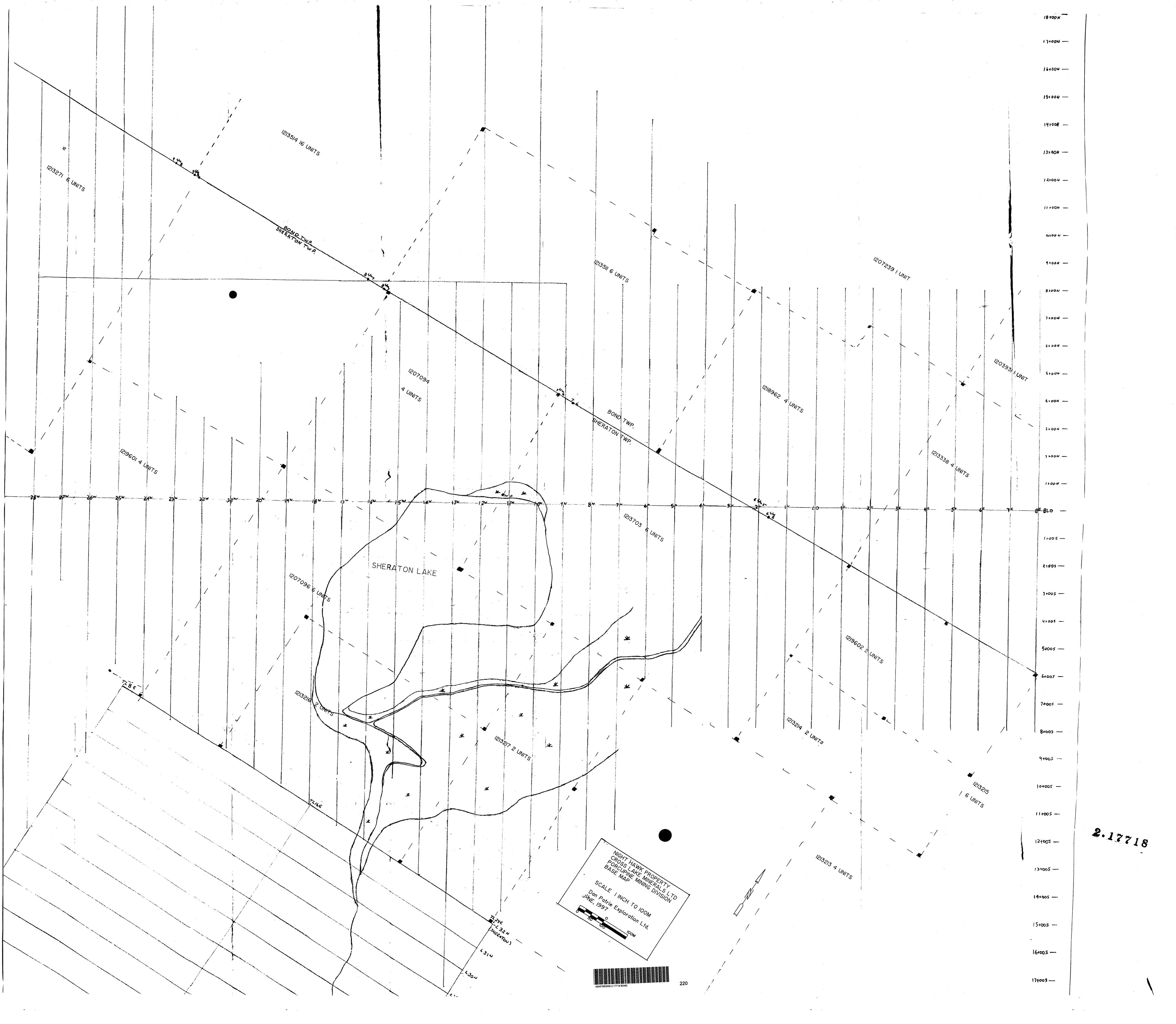
MARSHIOR MUSKEG

FOTO DESING CLAIMS PARK 15, ETC -

TROM VARIOUS SOURCES GUARANTEED THOSE WISHING TO STAKE MIN SULT WITH THE MINING RECORDER, MINISTRY OF MENT AND MINES, FOR AD DITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

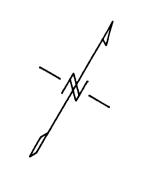
APPEARS ON THIS MAR

HAS BEEN COMP EL



-12 -15

2.17718



Scale 1:5000 00 0 100 200 (metres)

2A07NE0032 2.17718 BOND

Golden Knight Res./Cross Lake Min.

Gervais Property

Bond-Sheraton Townships

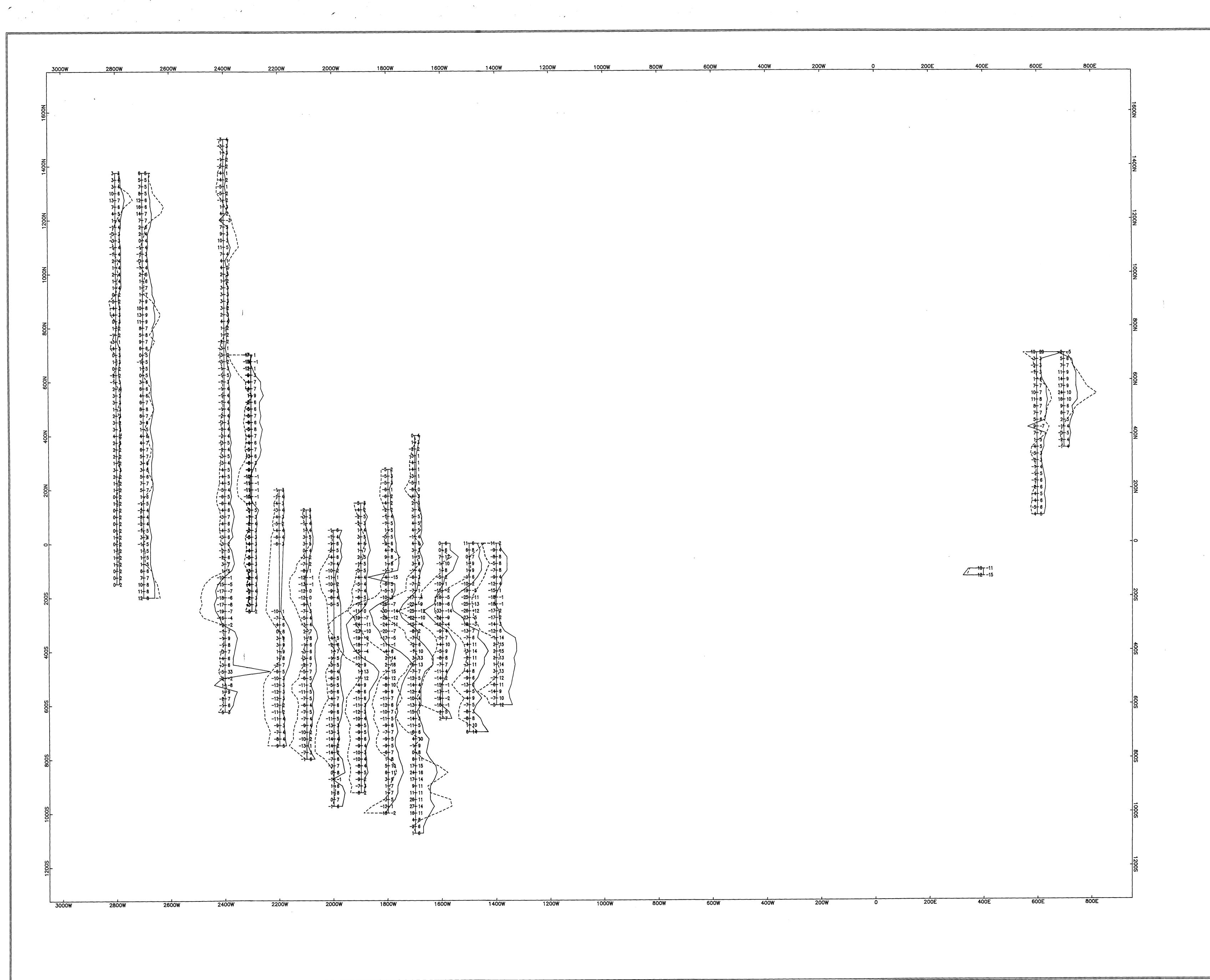
HLEM Survey - 444 Hz

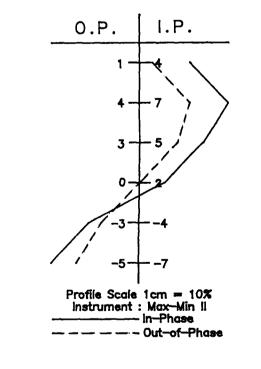
Cable Length: 200 m

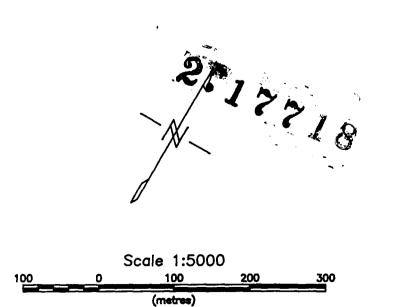
Station Spacing: 25 m

Personnel: D. Patrie, B.Patrie
Survey Date: March 1997

Dan Patrie Exploration Limited









Golden Knight Res./Cross Lake Min.

Gervais Property

Bond-Sheraton Townships

HLEM Survey - 888 Hz

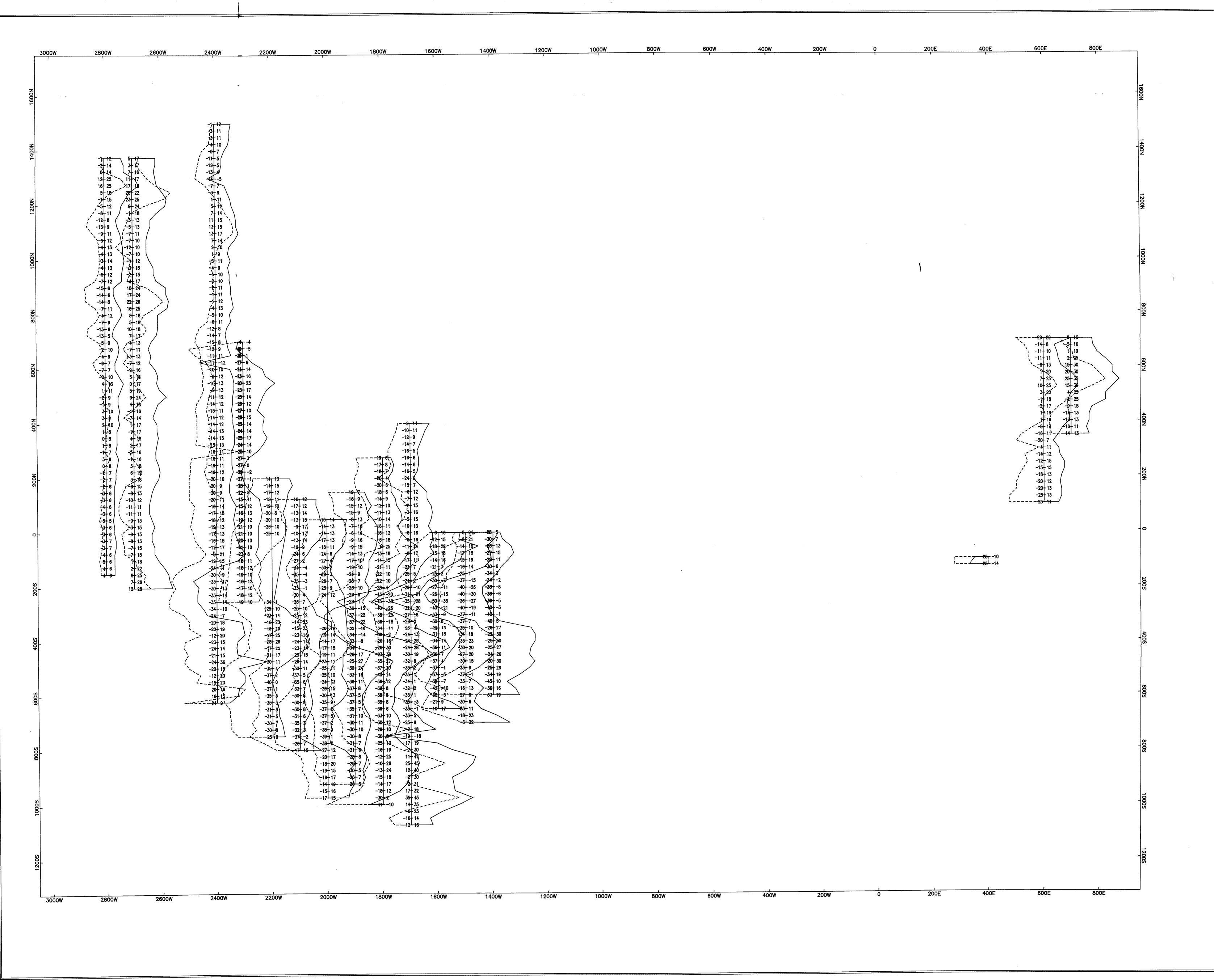
Cable Length: 200 m

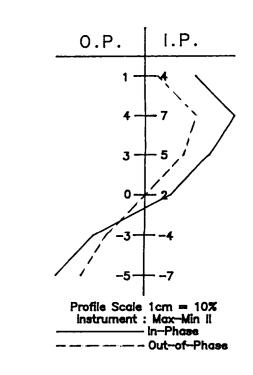
Station Spacing: 25 m

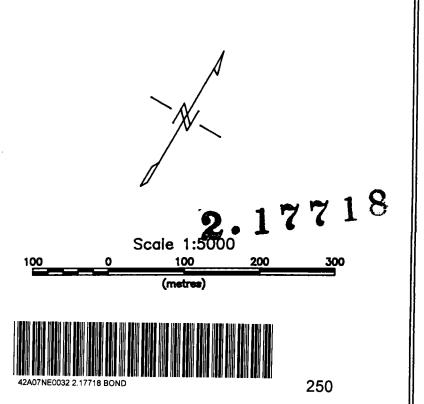
Personnel: D. Patrie, B.Patrie

Survey Date: March 1997

Dan Patrie Exploration Limited







Golden Knight Res./Cross Lake Min.

Gervais Property

Bond-Sheraton Townships

HLEM Survey - 1777 Hz

Cable Length: 200 m
Station Spacing: 25 m
Personnel: D. Patrie, B.Patrie
Survey Date: March 1997

Dan Patrie Exploration Limited