

115W0245 2.4746 ASQUITH

MOINE LANDS SELLION

2861 2 - YAN

RECEMED

### TIMMINS GOLD RESOURCES LIMITED

ELECTROMAGNETIC SURVEY

JESSE JAMES PROPERTY

ASQUITH TOWNSHIP

LARDER LAKE MINING DIVISION DISTRICT OF SUDBURY **ONTARIO** 

MARCH 1982





41P11SW0245 2.4746 ASQUITH

## TABLE OF CUNIENIS

		Page
Α.	Introduction	1
Β.	Location and access	1
C.	Survey and instrument data	1
۵.	Electromagnetic survey - Interpretation of results	2
Ε.	Summary and recommendations	3

# Accompanying Maps

4

Drawing #2 - Electromagnetic Survey - Scale: 1 inch to 200 feet

\$



Ø10C

#### A. INTRODUCTION

The Jesse James property consists of 10 (ten) contiguous claims in Asquith Township, Larder Lake Mining Division, District of Sudbury, Ontario. This claim block which consists of claims L. 579123, L. 579125, L. 579127, L. 579128, L. 552910, L. 620914, L. 620915, L. 620916, L.620917, L. 620918 is held by Timmins Gold Resources Ltd.

During October 1981, a grid was cut over the property and a subsequent magnetometer survey was conducted for Timmins Gold Resources by Exploration Services Reg'd. of Noranda, Quebec.

Following this, in February 1982, a electromagnetic (EM-16) survey was conducted by Narex Ore Search Consultants Inc.

#### B. LOCATION AND ACCESS

The claim group is located in the central part of Asquith Township, approximately one mile southwest of the village of Shining Tree, Ontario, which is located on Highway 560.

The claim group is bounded on the north by Highway 560 and on the west by Jesse James Lake.

#### C. SURVEY AND INSTRUMENT DATA

The survey was conducted over previously cut north-south lines which are spaced at 400 foot intervals across the property. A total of 7.3 miles of grid and baseline were cut and picketed every 100 feet. The baseline, which is oriented east-west, has a length of 3,700 feet across the middle of the property.



1.

₹.

#### Electromagnetic Survey

The electromagnetic survey was carried out using a "Geonics" EM-16 unit. The EM-16 is a sensitive receiver covering the frequency of the V.L.F. (very low frequency) transmitting stations, with a means of measuring the vertical field components. The VLF transmitting stations operating for communication with submarines, have a vertical antenna. The antenna current is thus vertical, creating a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, secondary fields are set up radiating from these bodies. The EM-16 equipment measures the vertical component of these secondary fields.

The receiver has two inputs with two receiving coils built into the instrument. One coil has a normally vertical axis, and the other, a horizontal one. Secondary fields caused by conductive bodies, are therefore measured by the EM-16 by the angle of dip on the instrument and by measured percentage of the quadrature component (out of phase component) to give a null signal. Any deviation from the zero null position is indicative of a secondary field and therefore, of a possible conductive body.

The transmitting station used for this survey was station NAA (17.8 kHz) Cutler, Maine, U.S.A. Readings were taken every 50 feet along the picketed lines for a total of 702 readings.

#### D. INTERPRETATION OF RESULTS - Electromagnetic Survey (Drawing No. 2)

Several moderate strength, generally east-west trending conductors, were detected by the EM-16 survey.

Conductor A is a moderate strength conductor which is traceable over 2,000 feet in claims L. 579128, L. 552910 and L. 579127. The quadrature response for this conductor is generally weak but shows similar inflection with the in-phase components. This suggests a moderate to poor conductive feature.



Conductor B is also a moderate strength conductor similar to Conductor A, whose axis strikes in an east-southeast direction parallel to Conductor A. Conductor B is traceable over 1,200 feet in claims L. 620918 and L. 620917, and probably continues further to the east. The quadrature response is similar to Conductor A and suggests a poor conductive zone.

Conductor C has an axis which strikes in a north-northeast direction. It is traceable over 800 feet in claims L. 620915, L. 620916 and L. 620917. Conductor C is weaker than either A or B and suggests a weakly conductive zone.

Conductor D is traceable over 400 feet in claim L. 620916. The axis trends in an east-northeast direction. Quadrature response is weak and similar to the in-phase component suggesting a weak conductor probably related to surface effects.

#### E. SUMMARY AND RECOMMENDATIONS

Results from the electromagnetic (EM-16) survey show several significant conductors over the Jesse James property.

Conductor A (2,000 feet long) and Conductor B (1,200 feet long) strike in an east, southeasterly direction across the middle of the property parallel to the baseline. This area is mainly swamp and low-lying ground, which may be one of the explanations for Conductors A and B. However, it is believed that Conductors A and B may represent a weakly conductive fault zone. The slight displacement of Conductor A from B suggests that they were originally one continuous feature, which has been displaced by a north-south striking off-set fault. Both of these conductors also appear to be related to areas of slightly lower magnetic gradients and magnetic strength.

Conductors C and D are weak, short, north-northeast, east-northeast trending conductors which probably represent surficial conductive overburden, or slightly conductive shear zones. Both of these conductors are underlain by areas of relatively low magnetic gradients and magnetism.



Detailed geological mapping may confirm these geophysical interpretations. It is therefore recommended that a program consisting of detailed geological mapping be carried out over the property in order to understand the geophysical results and outline potential drill targets.

Peti Bom

Peter Born May 1982 4.

Ontario Geoc	chemical and Expende	tures)	۰ ۱		(			
(Jul 255296)	)	1 3.5. x	The Minin					3
Geophysica	1 - EM-16	W82	OPPO	41P11SW0245 a	2.4746 ASQU	I TH	900	
Claim Hold	OLD RESOURCE	ES LTO	115360			17 1166		
Address		. <b>F</b> 5		10+ 445	<i>U</i> • ¬	1 100	11	12W-200
Juite 203-4	1900 Shepard Av	e.c., 5	kar boro u	gh, Oht. MIS	1 17	2.4/1	16	
NAREX ORE SEARCH	CONSULTANTS - 201-	49m Slepard	IE, Scarboroug	at 23 02	(170m & 10)       72       04       V	03 93 X.D	ine Cut	
Name and Address of Author (c	f Geo-Technical report)				ALC UA			
Leter Born, Yo Ju Credits Bequested per Each 1	Claim in Columns at r	inht	Mining C	arough , Ont.	liet in nume			
Special Provisions	Geophysical	Days per	Nining C	Aining Claim	Expend.	Mining Claim	Expend.	
For first survey:	- Electromagnetic		Prefix /	Number	Days Cr.	Prefix Number	Days Cr.	
Enter 40 days. (This includes line cutting)	• Maggetometer	20	<b>6</b>	552910	20	N 4 18		
	- Radiometric		وي والسياب المانية. المراجع المانية المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع الم المراجع المراجع	579123	20			
For each additional survey: using the same grid:	Onter			579125	20			
Enter 20 days (for each)	- Other		i i sana	579127	20			
	Geological			579128	20			
Man Days	Geochemical			620914	20			
Complete surges side	Geophysical	Claim	ىيىغىغ مارد ئېچىنىڭ رۇڭ	620915	20			
and enter total(s) here	- Electromagnetic		میں کے لیے ۔ بی ایک ایک ایک ایک ایک ایک ایک ایک ایک ای	620916	20			
	- Magnetometer			620917	20			
	Radiometric		2.5 2.5	620918	20			
	- Other							
	Geological							
	Geochemical		RE	CEIVE	D			
Airborne Credits		Days per Claim						
Note: Special provisions	Electromagnetic		Ar Ar	<del>n 2 1 1982</del>				
credits do not apply to Airborne Surveys.	Magnetometer		MINING	LANDS SUCT				
	Radiometric			CANUS SELT				Ľ
Expenditures (excludes pow	er stripping)							
Type of Work Performed			LA					,
Performed on Claim(s)			ה					
			M					1
			75	1AR 1 0 1982	D'1			
Calculation of Expenditure Day	s Credits	Total	7 18 19	101111211+2+3	41-13-			
Total Expenditures	Day	s Credits						
\$	+ 15 =	]				Total number of mining claims covered by this report of work.	10	
Total Days Credits may be an	oportioned at the claim I	nolder's	l r	For Office Use O	Inly -		L	
in columns at right.	s credits per claim select	ea	Total Day Recorded	S Cr. Date MARed	5 1982	Mining Recorder	]	
	corded Holdedor Agent (	Signature)		Date Arreved	as Hecordeo-	1112	$\rho \longrightarrow 0$	
Mar. #15, 1982	Laby Kom	•	1 30	83:02	08	Octom 7	3	
Certification Verifying Repo	rt of Work		A	yr				
I hereby certify that I have a or witnessed same during and	personal and intimate k l/or after its completion	nowledge of and the anr	f the facts set nexed report is	forth in the Report ( true.	of Work anne	xed hereto, having performe	d the work	
Name and Postal Address of Per	son Certifying	//	Shee at a	Ave E Shepp an	aroud n	ALE MAD		
PETER BO	RN - 201-	7700 -	nepara 1	Date Certified		Certified by (Signature)		
L				Mar. 15. 1	<b>9</b> 82	Kets Bom		1





File 2. 4746

**Mining Lands Comments** 

			· · · · · · · · · · · · · · · · · · ·	<b></b>
-				
		<u></u>		
-				······································
	/			
	o: Geophysics	Mr Barler		
	omments			
			······································	
				a 1961 - The grant term in a spin of the second
	Approved	Wish to see again with corrections	Date 3/4	2 Signatore Rh
	o: Geology - Exp	enditures	()	
C	omments		<u> </u>	
				·····
	1			
	Approved	Wish to see again with corrections	Date	Signature
	o: Geochemistry			·····
	omments			
-	·····		/	
				,
_			<u></u>	. <u>- 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 19</u>
			Date	Signature
L	Approved	Wish to see again with corrections		
Πτ	o: Mining Lands	Section, Room 6462, Whitney Block.	(Tel: 5-1380)	
	•			



OFFICE USE ONLY

#### Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

# 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.

		Sec. Conservation and Sec.
Type of Survey(s) Geophys	ical - Electromagnetic	
Township or Area <u>Asquit</u>	n Township	MININ
Claim Holder(s) Timm	ins Gold Resources Ltd.	
Suite 20	3 - 4900 Sheppard Ave, Scarboroug	h l
Survey Company Narex Ore	Search Consultants	
Author of Report Peter. Bo	prn	(6
Address of Author 208-49	0 Sheppard Ave E Scarborough On	É.
Covering Dates of Survey	Feb. 15 - May 4, 1982	
,	(linecutting to office)	
Total Miles of Line Cut	(.3 m) les	
<b></b>		
SPECIAL PROVISIONS CREDITS REQUESTED	DAYS Geophysical per claim	•••••••••••••
	-Electromagnetic20	a
ENTER 40 days (includes	-Magnetometer	
survey.	-Radiometric	
ENTER 20 days for each	Other	
additional survey using	Geological	
same grid.	Geochemical	erie an anti-factor and being
AIRBORNE CREDITS (Spec	al provision credits do not apply to airborne surveys)	
MagnetometerElectu	comagnetic Radiometric	
	(enter days per claim)	
DATE: May 4 1982	SIGNATURE. AM LOW	
	Author of Report or Agent	
	0 21 AL	
Res. Geol	Qualifications X. SGO 7	
Previous Surveys	tan secara da anti-	•หภาะการไม
File No. Type D	ate Claim Holder	T
		and a second sec
		, L. J. Hunnerson
	<ul> <li>The second se Second second sec</li></ul>	

A CONTRACT OF		
MININO CLAIMS TRAVERSED		
manter (prefix) (number)	•••	
75 AV 578123 AV AV 2012 AV		
<b>579125</b>		
579127		
ERANDO		
······		
	•	Ŧ
		Rt, at
620916	ц. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	fficie
600017		c fina
······	• • •	
A ROUTE STATE		
field and an an and the second		
	••••	
າລາວການຜູ້ການນັກເຫັນແຫ່ນຜູ້ແຫ່ນຜູ້		
เน้าสารการที่มีรายสารการที่มีเป็นสารที่สารการการที่สารการการที่	•	

File

TOTAL CLAIMS E al

#### **GEOPHYSICAL TECHNICAL DATA**

 $V_{\rm eff}$  (

# <u>GROUND SURVEYS</u> - If more than one survey, specify data for each type of survey



Number of Stat	ions <u>702</u>	Number of Readings 702
Station interval	50 feet	Line spacing 400 feet
Profile scale	1 inch to 20%	
Contour interva		
Instrument _		
$\mathbf{H}$ Accuracy – $\mathbf{S}$	Scale constant	
Diurnal corre	ection method	
Base Station	check-in interval (hours)	and the second second second second second
Base Station	location and value	
U Instrument _	Geonics EM-16	
Coil configur	ation	
Coil separatio	on	
Accuracy	<u>+ 1%</u>	ATTAL OLD STORE
Method:	- Fixed transmitter	Shoot back 🔅 🗇 In line 💭 Parallel line
Frequency_	17.8 kHz NAA	
Barametera m	ensured dis angle of the in	(specify V.L.F. station)
Talameters n	icasuicu <u>— u+µ anyte or uie n</u>	r-priase and quadrature components (*)
Instrument		
Scale constar	ht ht	
Corrections r	nade	
	nauc	
Base station	value and location	
Dase station		
Elevation acc	uracy	
Lievation acc	······································	
Instrument		
Method	Time Domain	Frequency Domain
Parameters –	- On time	Frequency
×	Off time	Range
-	- Delay time	
IIIS -	- Integration time	
is Power	0	
Electrode arr	av	
Electrode sp	acing	
Type of elect	irode	
rype of elect	·····	

INDUCED POLARIZATION

	그는 것 같은 것 같
	and the second secon
SELF POTENTIAL	
Instrument	Range
Survey Method	
Corrections made	
conections made	
	and the second secon
BADIONETRIO	<ul> <li>The second se second second s second second sec second second sec</li></ul>
KADIOMETRIC	
Instrument	
Values measured	- Comparing the second s Second second second Second second s Second second second Second second sec
Energy windows (levels)	na na sana na Na sana na sana Na sana na sana
Height of instrument	Background Count
Size of detector	an a
Overburden	
(type, depth – inc	clude outcrop map)
OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)	
Type of survey	
Instrument	(1) A statistic production of the submatrix of the sub
Accuracy	
Parameters measured	
	en e
Additional information (for understanding results)	an a

## AIRBORNE SURVEYS

	المين من المحمد المين المحمد المح المحمد المحمد
	日本,如此不可以是一部,如此部分,如此这一条部分,如此一个。 [1] 新闻,如此一部一个。 [1] 我们一个人,这些不知道,我们就是一个人,你就是一个人,你们还是一些我们就能够不是了。
AIRBORNE SURVEYS	a da sensa d Sensa da sensa da sens
Type of survey(s)	
Instrument(s)	
Instrument(s)	(specify for each type of survey)
Accuracy	
	(specify for each type of survey)
Aircraft used	د به موجود محمد منه منها منها منها ومنه منها المراجع بالمراجع في المراجع منها المراجع منها المراجع و منها المرا مستعم موجود محمد منه منها منها منها منها منها منه منه المراجع بالمراجع المراجع منها المراجع و منها منها المراجع ما المراجع المراجع المراجع المراجع المراجع المراجع منه منه المراجع المراجع المراجع المراجع المراجع و منها المراج
Sensor altitude	
Novientian and flight noth recovery mot	
Navigation and fight path recovery meth	
Aircraft altitude	Line Spacing
Miles flown over total area	Over claims only

# GEOCHEMICAL SURVEY - PROCEDURE RECORD.

Numbers of claims from which samples taken	
Total Number of Samples	
Type of Sample	Values expressed in:
(Nature of Material) A versue Somple Weight	
Method of Collection	<b>•••</b>
Method of Concetion	Cu, Pb, Zn, Ni, Co, Ag, Mo, As; (circle)
Soil Horizon Sampled	Others
Horizon Development	Field Analysis (
Sample Depth	Extraction Method
Terrain	Analytical Method
	Reagents Used
Drainage Development	Field Laboratory Analysis
Estimated Range of Overburden Thickness	No. (tests)
	Extraction Method
	Analytical Method
	Beagents Lised
SAMPLE PREPARATION	Commercial Laboratory (
Mech size of fraction used for analysis	Name of Laboratory
ment size of fraction used for analysis	Extraction Method as the first state in the

. . . . .

. . . . . . . . .

.

General\_

1.5.4.4 Analytical Method Reagents Used General -1. The second and the second w Z. of The State States ana Angela in San Kangana ing Kangana . Weil a Annual Condition of State All Brand States ى ئۇرىيى يەرىپىدى the section of the se an an airth air gha a' a starrent the second

1.14

32 2 124 A 16 2 3 4 4

N.

5.65

1982 05 17

2.474

Mining Recorder Ministry of Natural Resources 4 Government Road East P.O. Box 984 Kirkland Lake, Ontario P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 552910 et al in the Township of Asquith.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Doronto, Ontario M7A 1W3 Phone: 416/965-1316

J. Skura/amc

cc: Timmins Gold Resources Ltd. Scarborough, Ontario

100

Mr. Peter Born/Narex Ore Search Consultants Scarborough, Ontario

Summer		Sold	Resources	ltd,		9.47	46
L 552910	V					 	
579123	V					 	_ _
579125	$\checkmark$						
27	V	_				 	
38	V					 	
620914	$\checkmark$		•.				
15	$\checkmark$	<u> </u>				 	
16		<u> </u>					
	<ul> <li>✓</li> </ul>		·			 	
18	<b>√</b>					 	
<b></b>		<u> </u>				 	
<u>.</u>						 	
	المراجعة والمراجعة	ļ				 	
Language and a second						 	
·		ļ					
:		<b>}</b>				 	
		<b> </b>				 	
h			<u> </u>			 	
						 	<b> </b>
·		[					
•••••							
}		·					
۱						 	
						 	<b> </b>
						 	<b> </b>
•							<b> </b>
						 1	
					·	 	
			anna an			 	
4	1	·		t í	1	t I	i i





210



# ELECTROMAGNETIC SURVEY

— N —

OPERATOR : P.BORN INSTRUMENT: EM - 16 (Geonics) READINGS: in-phase and quadrature components (%) STATION : NAA 17.8 KHz PROFILES: IN-PHASE + \_ QUADRATURE 6 7 / 2 8 4/-1 3 Crossover -7/ - 3 *i*-5↓ 4,∕ direction of readings DATE : March, 1982 SCALE: I inch to 200 feet l inch to 20% 400' 40%

● EM-16 Conductor Axis

TIMMINS GOLD RESOURCES ELECTROMAGNETIC SURVEY JESSE JAMES PROPERTY ASQUITH TOWNSHIP, ONTARIO Drawn by: P.Born Date: April, 1982 Approved by: P, Born Conducted by: Date: Mar., 1982 Map No: 🤈 NAREX Ore Search Consultants Inc. NAREX 4900 Sheppard Avenue East, Suite 208, Scarborough Ontarlo, Conoda H IS 447 Tei.(416)295-2990