

42E12NE0201 2.5886 VINCENT

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REPORT

ON A

**GROUND MAGNETIC** 

AND VLF SURVEY

**VINCENT TOWNSHIP** 

N.W. ONTARIO

FOR

PECEIVEN

CANAMAX RESOURCES INC.

OCT 1 2 1983

COMING LANDS SLOTIN

September, 1983

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A. Watts Geophysicist



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i) Schedule of Claims

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ii) 1 Magnetic Contour Map (1" = 200')

iii) 1 VLF Profile Map (1" = 200')

#### INTRODUCTION

During the period January 6-7, 1983, Northwest Geophysics Ltd., of Thunder Bay carried out ground magnetic and VLF surveys on a group of six claims in Vincent Township, near the town of Jellicoe, N. Ontario for Amax Minerals Exploration, now Canamax Resources Inc., of Toronto, Ontario.

The purpose of the survey was to;

- i) assist in a more complete understanding of the geology on the claim group, which is covered to a large extent by overburden and
- ii) to define any possible Au bearing geological environment.

The presence of iron-formation in the general survey suggested that the VLF/magnetic combination would be the most suitable and cost-effective approach to adopt.

A total of approximately 9km of ground geophysical surveying, at a 25 metre reading interval, was thus undertaken on this six (6) claim group.

-1-



CANAMAX RESOURCES INC., Vincent Township <u>PICHETTE OPTION</u> <u>LOCATION MAP</u> 1" = 30 mi.

### LOCATION AND ACCESS

The property lies approximately 2 km south of the CN railway link between Thunder Bay and Longlac, and 4 km southwest of Nezah Station. The Blackwater River, which runs immediately south of the CN line for several miles in the project area, makes access to the property difficult, especially in the summer if the river is high. Once across the Blackwater River, however, a good trail leads directly to the centre of the property.

### GEOLOGICAL HISTORY

The property is underlain by mafic (andesite and dacite) meta-volcanics interbedded with iron-formation. Metamorphism frequently recrystallizes the iron to magnetite and also where hydration has occurred, chlorite and rosettes of fibrous actinolite. This general sequence of rocks is intruded by numerous quartz-feldspar porphyry dikes. Intruding all the above are veins of gold-bearing quartz. Though these veins occur primarily in the meta-volcanics, and iron-formation close to porphyry intrusions, they have been found in the Temiskaming sediments north of the property. These quartz veins tend to be

-2-

narrow generally less than 4 feet, and are found more often in iron-formation than in the meta-volcanics.

Though gold was first reported from the Beardmore-Nezah area in 1916, widespread staking was initiated only in 1925, most of the claims situated in a 3-5 mile belt centred on the CN railway line. After this initial flurry of activity, lack of any mineable discovery caused the area to lie dormant until the recent dramatic increase in the price of gold.

#### SURVEY TECHNIQUE

### 1) VLF ELECTROMAGNETIC METHOD

A Phoenix VLF II instrument was used to measure the dip angle and horizontal field strength components of the VLF primary field. The frequency used was the 17.8 KHz signal transmitted from Cutler, Maine. Readings were obtained at 25 metre intervals.

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### 2) MAGNETIC METHOD

A Geometrics G-816 total field proton precession magnetometer was used, with readings obtained every 25 metres. All readings were tied into a central base-station and subsequently corrected for any diurnal variation.

-4-

#### DISCUSSION OF RESULTS

### Magnetic Survey

The magnetic survey has outlined two distinct magnetic regimes on the property. To the north and west an area of low susceptiblity rocks has been mapped which likely reflects underlying sedimentary rocks. The boundary created by the abrupt increase in magnetic activity from 2N southward across most of the grid is interpreted as reflecting a sedimentary/volcanic contact. Within the magnetically active portion of the grid are numerous, approximately east-west striking, magnetic anomalies which appear to arise from several sources, the most common of which is magnetite-rich iron-formation as mapped in the vicinity of 150S on Line 500E. Some of the numerous ultra-mafic (gabbro) intrusives outcropping in the south-eastern portion of the grid are also sporadically magnetic, i.e. at 200S Line 125E.

The known association of Au-bearing quartz veins with iron-formation in this area suggests that the magnetic survey has outlined a number of interesting targets for follow-up. The most notable of these are the relatively continuous magnetic trends centred approximately on 75N and 250S respectively.

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### VLF Electromagnetic Survey

The main conductive trend to be resolved by the VLF survey coincides with the iron-formation as outlined by the magnetic survey between 75N and 100N on most survey lines. It should be noted that the convention for a valid dip-angle cross-over is negative to positive for this survey A second probable iron-formation at 175N between lines 125E and 375E serves to broaden the enhanced field strength response especially on Line 125E. Erratically anomalous field strength response in the north and west portions of the grid confirms the presence of weakly conductive overburden.

On the south half of the survey grid the only responses of any apparent significance are located at 275S on Line 125W and 350 S on Line 875E, the former of which is coincident with the iron-formation mentioned in the discussion of the magnetic survey.

-6-

### CONCLUSIONS AND RECOMMENDATIONS

The VLF and magnetic surveys have outlined two top priority iron-formation type targets. The first of these should be field checked at 100N on Line 125E, the second at 75S on Line 125W. Any outcrop found should of course be sampled for precious metals. If no satisfactory explanation can be found for these two prominent geophysical features, drill-testing would be an obvious next step.

### Respectfully submitted,

a Watto

A. Watts

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# SCHEDULE OF CLAIMS

# Our Project: 54019-01

# Vincent Township

TB	519316
TB	519428
TB	534700
ТB	534701
ΤB	535205
TB	614162

# Total - 6 Claims

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Claim Holder(s) Canali	nax Resources In	c.		- 		Prospector's	Licence No.	
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North	vest Geophysics			6 1 Day   Mo.	83 7 Yr.   Day	1 83 Mo.   Yr.	9 Km	
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**OFFICE USE ONLY** 

## **Ministry of Natural Resources**

File\_

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.

Type of Survey(s) Ground Magnetic & Electromagnetic				
Township or Area Vincent Township				
Claim Holder(s) Canamax Resources Inc.	List numerically			
1100-181 University Ave., Toronto, Ont.				
Survey CompanyNorthwest Geophysics				
Author of Report A. H. Watts	TB 519316			
Address of Author 306 Bogert Ave., Willowdale, Ont.	TB 519428			
Covering Dates of Survey January 1 - 7, 1983 (linecutting to office)				
Total Miles of Line Cut 9 Km (5.6 miles)	TB 534700			
	TB 534701			
SPECIAL PROVISIONS DAYS CREDITS REQUESTED Det claim	TB 535205			
Geophysical Geophysical	TB 614162			
ENTER 40 days (includesElectromagnetic 40 20				
line cutting) for firstMagnetometer				
Survey. –Radiometric				
additional survey using Gaological	DECENTER			
same grid.				
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Magnetometer Electromagnetic Radiometric	MINING LANDS SECTION			
(enter days per claim)				
DATE: Oct. 7/83 SIGNATURE: (1) atto				
Res. GeolQualificationsQ10				
Previous Surveys				
File No. Type Date Claim Holder				
	TOTAL CLAIMS6			

# GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -	If more than one	survey, specify data	i for each t	vpc of survey

N	umber of Stations354	Number of Readings354
S	tation interval 25 metres	Line spacing 125 metres
Р	rofile scale $1 \text{ cm} = 10^{\circ}$ , $1 \text{ cm} = 25\%$ (Fig	eld_Strength)
C	ontour interval 100 gammas for magnetics	
-	Geometrics G-816	
IC	A source in Scole constant 1 gamma	
NE	Diurnal correction method Base-station loo	ops - linear drift correction
TAG	Base Station check-in interval (hours) 1 hr.	
4	Base Station location and value Baseline 0	, Line 125W, 60098 gammas
	Phoenix VLF II	
ET	Coil configuration	
AGN	Coil separation	
MO	Accuracy 10 Dip Angle, 5% Field Strength	
IR	Method:	□ Shoot back □ In line □ Parallel line
LEC	Frequency17.8 KHz (specific	ccify V.L.F. station)
ы	Dip Angle, Field Stren	igth
	Instrument	
	Scale constant	
<u>YTI</u>	Corrections made	
<b>VAV</b>		
B	Base station value and location	
	Elevation accuracy	
	Instrument	
	Method 🔲 Time Domain	Frequency Domain
	Parameters - On time	Frequency
IX	Off time	Range
IVI	– Delay time	
ISIS	— Integration time	
RE	Power	
	Electrode array	
ļ	Electrode spacing	
	Type of electrode	······

INDUCED POLARIZATION



## SELF POTENTIAL

Instrument	Range
Survey Method	
Corrections made	
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RADIOMETRIC	
Instrument	
Values measured	······································
Energy windows (levels)	
Height of instrument	Background Count
Size of detector	
Overburden	
(type	;, depth — include outcrop map)
OTHERS (SEISMIC, DRILL WELL LOGGING	ETC.)
Type of survey	······································
Instrument	
Accuracy	
Parameters measured	
Additional information (for understanding resu	lts)
AIRBORNE SURVEYS	
Type of survey(s)	
Instrument(s)	
A coursey	ify for each type of survey)
(spec	ify for each type of survey)
Aircraft used	
Sensor altitude	
Navigation and flight path recovery method	
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	ANALYTICAL METHODS
Type of Sample	
(Nature of Material) Average Sample Weight	p. p. m.
Method of Collection	p. p. b.
	Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)
Soil Horizon Sampled	Others
Horizon Development	Field Analysis (tests)
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
	Reagents Used
SAMPLE PREPARATION	Commercial Laboratory (tests)
(includes drying, screening, crushing, ashing)	Name of Laboratory
Mesh size of fraction used for analysis	Extraction Method
	Analytical Method
	Reagents Used
General	General
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Ontario	Ministryof Natural Resources	Geotechnical Report Approval
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File 2.5886

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To: Geophysics	Mr. Koan B	alon	
Comments	0		
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Approved	Wish to see again with corrections	Pate ee 5/53	Signature
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To: Geology - Ex Comments	Wish to see again with corrections	Date	Signature
To: Geology - Ex Comments	Wish to see again with corrections	Date	Signature

January 12, 1984

Your File: 2.5886

Canamax Resources Inc Suite 1100 181 University Avenue Toronto, Ontario M5H 3M7

Dear Sirs:

RE: Geophysical (Electromagnetic and Magnetometer) Survey submitted on Mining Claims TB 519316 et al in the Township of Vincent

We are endeavouring to compile a list of qualifications of those persons who sign reports of geological, geochemical and geophysical surveys submitted to this Ministry for assessment work credits. It would be appreciated, therefore, if you would please furnish a brief resume of Mr. A. Watts' qualifications for our records.

For further information, please contact Mr. F.W. Matthews at (416)965-1380.

Yours very truly,

J.R. Morton Acting Direttor Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-1380

M.E. Anderson:mc

cc: Mining Recorder Thunder Bay, Ontario

2.5886

UNIVERSITY AVE.

ONTARIO

**SUITE 1100** 

M5H 3M7

TORONTO,

181



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January 13, 1984

Mr. J. R. Morton, Acting Director, Land Management Branch, Ontario Ministry of Natural Resources, Whitney Block, Room 6643, Queen's Park, Toronto, Ontario M7A 1W3

**TELEPHONE 416-364-6188** NEGEIVED Land Management Branch П CHOCH ATE CONTRACTS PLEASE JAN 16 1984 L. ALLA REON 144 2009 ( 1000 H. 6843

Dear Sir:

Re: Resume of Qualifications Mr. A. Watts - File 2.5886

As requested in your letter dated January 12, 1984, we enclose a photocopy of Mr. Watts' resume for your files.

A copy of this resume was sent to Mr. Mr. F. W. Matthews on February 27, 1979.

Yours truly,

= lizabeth A Banclau

Elizabeth A. Barclay

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cc: A. Watts

[JAN 1 8 1984

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I, Anthony H. Watts, residing at 24 Forest Manor Road, Willowdale, Province of Ontario, hereby certify that:

- 1) I am a graduate of Rhodes University, Grahamstown, South Africa, having received a B.Sc. in Geology and Chemistry in 1972.
- I have been practising as a geophysicist since joining Geoterrex Limited, of 2060 Walkley Road, Ottawa, Ontario, in January, 1973.
- I have been employed as a mineral exploration geophysicist by Amax Minerals Exploration since November, 1978.
- 4) I am an Associate Member of the Society of Exploration Geophysicists.

February 23, 1979 Date Signed a Watto

A. H. Watts, B.Sc.

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Mrs. Audrey Hayes Mining Recorder Ministry of Natural Resources P.O. Box 5000 Thunder Bay, Ontario P7C 5G6

Dear Madam:

We have received reports and maps for a Gepphysical (Electromagnetic and Magnetometer) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims TB 519316 et in the Township of Vincent.

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

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone:(416)965-1380

D. Kinvig:mc

cc: Canamax Resources Inc. Suite 1100 181 Univer**ššty** Avenue Toronto, Ontario M5H 3M7



TORONTO, ONTARIO 181 UNIVERSITY AVE. SUITE 1100 M5H 3M7 TELEPHONE 416-364-6188

October 7, 1983

Mr. F. W. Matthews, Ontario Ministry of Natural Resources, Room 6450 - Whitney Block, Queen's Park, Toronto, Ontario M7A 1W3

Dear Sir:

Re: Ground Magnetic & Electromagnetic Survey Vincent Township - Mining Claims TB 519316, TB 519428, TB 534700, TB 534701, TB 535205 and TB 614162 - Our Project 54019-01

Enclosed are two copies of a Report and Plans in the above connection. A Report of Work was filed with the Mining Recorder in Thunder Bay on October 3, 1983.

Thank you.

Yours truly, Elizabeth A. Barclay

E. enc1.

cc:	К.	R.	Clemiss
cc:	A.	Н.	Watts
cc:	D.	H.	Waddington
cc:	G.	F.	Pichette

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