



42A04NW0141 2.5820 KENOGAMING

010

GEOPHYSICAL REPORT

ON THE

KENOGAMING PROPERTY

KENOGAMING TWP., ONTARIO
DISTRICT OF SUDBURY

f o r

CARL CREEK RESOURCES LTD.

RECEIVED

SEP 19 1983

MINING LANDS SECTION

September 5, 1983

J.K. Filo
Geologist

Qual. 2.3466.



010C

TABLE OF CONTENTS

	<u>page</u>
INTRODUCTION	1
PROPERTY OWNERSHIP	1
LOCATION & ACCESS	1&2
PROPERTY HISTORY	2&3
SURVEY PARAMETERS	4&5
INSTRUMENTATION	4&5
INTERPRETATION	5,6&7
CONCLUSIONS	7
RECOMMENDATIONS	8
BIBLIOGRAPHY	9
APPENDIX #1 Instrument Specifications	10
CERTIFICATE	11

FIGURES

- Fig. #1 ----- Location Map
- Fig. #2 ----- Claim Map
- Fig.#3 ----- V.L.F.-E.M. Map

INTRODUCTION

During July of 1983 Danit Exploration Services conducted a V.L.F.-E.M. survey over the Carl Creek's Kenogaming property in the District of Sudbury, Northern Ontario.

Gold mineralization on the Kenogaming property is known to be associated with pyritic shear zones. A V.L.F.-E.M. survey was carried out over the property in an attempt to locate mineralized shear zones which may carry economic gold values.

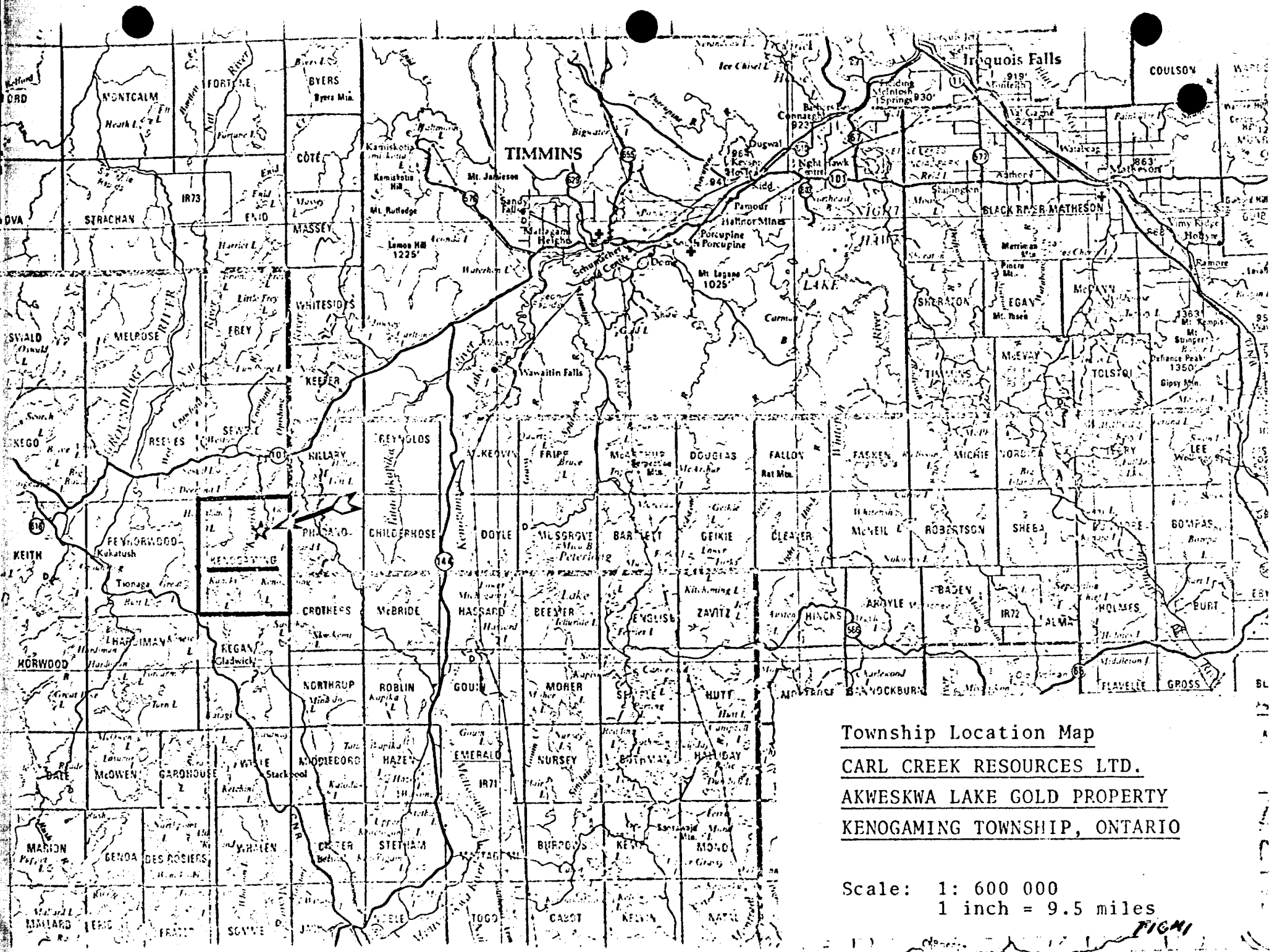
This report will describe the exploration techniques employed during the survey and present results and recommendations for further explorations.

PROPERTY OWNERSHIP

The property consists of five (5) contiguous mining claims numbered 652588 to 652592 inclusive. These claims are owned by J.K. Filo and Maurice Hibbard; the claims are presently under option to Carl Creek Resources of Vancouver, B.C.

LOCATION & ACCESS

The property is located in the northeastern portion of Kenogaming Township; longitude $81^{\circ}55'W$,



Township Location Map
 CARL CREEK RESOURCES LTD.
 AKWESKWA LAKE GOLD PROPERTY
 KENOGAMING TOWNSHIP, ONTARIO

Scale: 1: 600 000
 1 inch = 9.5 miles

TIGNI

LOCATION MAP
CARL CREEK
(5 CLAIMS)



KENOGAMING TWP.

LAKE
AKWESKWA

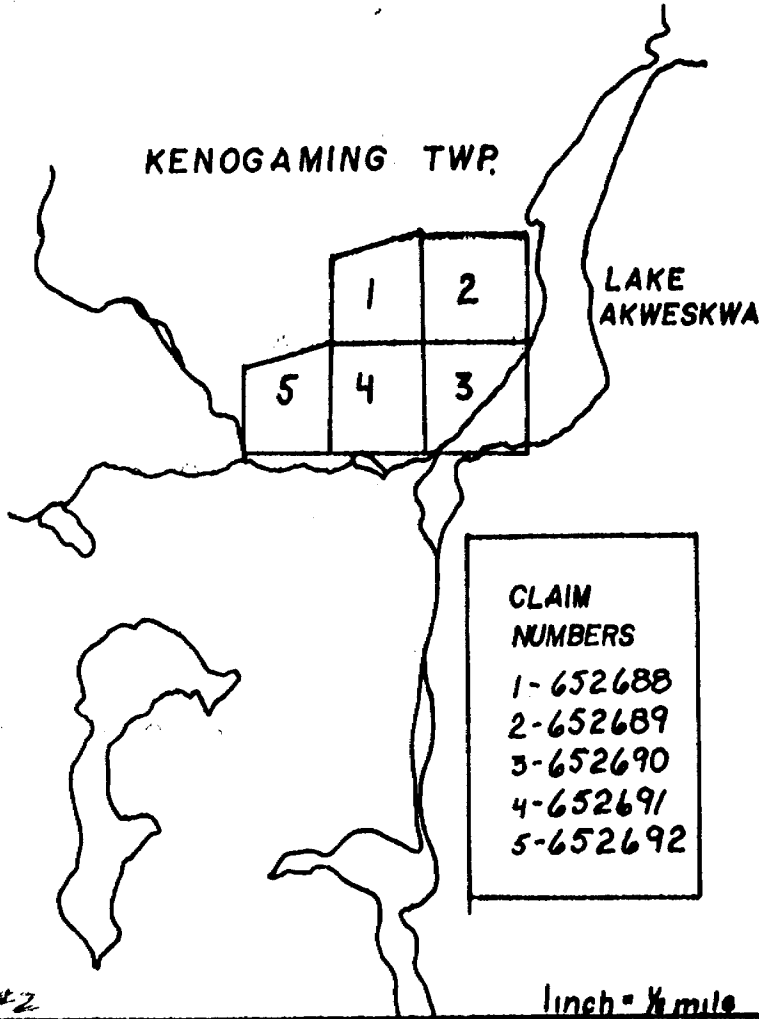


FIG #2

1 inch = 1/2 mile

LOCATION & ACCESS cont'd

Latitude 48°08'N or approximately 35 air-miles southwest of Timmins, Ontario.

Access to the claim group is readily gained from Timmins via Highway 101 (38 miles) and thence via Malette Lumber's timber roads (9.7 miles). The property may also be reached by float equipped aircraft.

HISTORY OF PROPERTY

The first recorded work in the area now comprising the Akweskwa Lake Property was by Hoodoo Lake Mines following a gold-zinc-silver discovery in 1947 by prospector N. Elieff. Trenching and stripping was done on the showing in 1947, and in 1948 a geological survey of the surrounding area was completed.

Work stopped on the property in 1948, and in 1950 the name of Hoodoo Lake Mines was changed to Dunvegan Mines. In 1951, an increase in the price of zinc encouraged Dunvegan Mines to re-examine the property with regard to its gold-zinc potential. At the same time, prospecting in the adjacent areas discovered a number of nickel showings.

In 1953, Norduna Mines Limited (a subsidiary of Falconbridge Nickel Mines) acquired 135 claims from Dunvegan Mines including those claims encompassing the original Hoodoo Lake Mines' gold-zinc-silver showing and a number of nickel occurrences. Norduna Mines' subsequent exploration in the area consisted essentially

PROPERTY HISTORY cont'd

of a search for nickel-copper deposits associated with ultramafic intrusives. In 1957, Falconbridge brought nine claims, they covered the main nickel occurrences, to patent and dropped the other claims.

In 1957, Dunvegan re-staked some of the open ground, and completed diamond drilling on two ultramafic intrusives including one located east of Akweskwa Lake in an area that now comprises part of the subject property. Dunvegan Mines has been inactive in the area since 1957 and has held no claims since 1965.

In 1960 Jonsmith Mines staked 12 claims covering the former Dunvegan Mines original gold-zinc showing, and undertook exploration in this area. Jonsmith located a second gold-bearing occurrence approximately 1,800 ft. northeast of the original showing. They tested this new occurrence with only three short diamond drill holes --- the lack of a detailed evaluation of this gold-bearing zone is surprising since the first drill hole reportedly intersected two separate 5-foot sections containing 0.92 & 0.16 oz. gold/ton respectively associated with a sericitized, well pyritized tuff.

In 1966, Falconbridge Nickel Mines optioned part of the Jonsmith Claim Group including the original Hoodoo Lake - Dunvegan Mines gold-zinc showing. Falconbridge evaluated this this showing by 3,100 ft. of diamond drilling along a strike length of 800 feet. Zinc-silver-gold values were intersected in three drill holes; however, values were below ore grades and the Jonsmith claims subsequently were allowed to lapse. (Darke, 1983)

SURVEY PARAMATERS

GRID

A control grid was established during the course of the geophysical survey. An east-west baseline was cut across the property. This baseline was bisected by north-south crosslines every 100 m. Stations along the crosslines were located at 20 m intervals. A total of 7.08 km of gridline was completed.

V.L.F.-E.M.

The V.L.F.-E.M. survey over the Kenogaming property covered a total of 7.08 km. Cutler Maine was used as a signal source; this provided a suitable E.M. coupling with the interpolated geological strike.

INSTRUMENTATION

V.L.F.-E.M.

The V.L.F.-E.M. method employs as a source one of the numerous submarine communications transmitters in the 15 to 25 KHz band located throughout the world. At the surface of the earth these radio waves propogate predominantly is a single mode along the earth-air interface. This mode is known as the "surface wave". Over flat homogeneous ground in the absence of vertical conductive discontinuities the magnetic field component of this radio wave is horizontal and perpendicular to its direction of propogation.

INSTRUMENTATION cont'd

Where non-horizontal structures such as faults, contacts and conductors give rise to changes in ground conductivity secondary modes are generated which produce a vertical component of the magnetic field. This produces an elliptical polarization of the total field in a plane perpendicular to the direction of propagation.

Commercial V.L.F. instruments enable detection of disturbing structures by measuring the tilt angle of the major axis of the polarization ellipse. On flat homogeneous ground the tilt angle will be zero, but in the vicinity of conducting disturbances it will acquire a finite value. Direction of tilt indicates direction of the disturbing structure. Ability to deduce such parameters as depth, depth extent, dip and width of anomalous structures is minimal. Fortunately this does not seriously affect location of points where V.L.F. profiles cross the upper limit of dipping structures which can be identified as areas of greatest change in tilt angle per unit of distance. (Jones, D. 1981)

INTERPRETATION

Anomaly "A"

This anomaly strikes east-west from L10E, St. 340N to L12E St. 340N. The conductor is considered to be fairly weak and conductive overburden is

INTERPRETATION

Anomaly "A" cont'd

is contributing somewhat to the E.M. response. The E.M. profile suggests that this conductor dips towards the south and estimated depth to this conductor is 24 m. A revaluation of this conductor should be made after a magnetic survey over the property is completed.

Anomaly "B"

Anomaly "B" strikes northeast - southwest from L104N, St. 260N to L5E, St. 200N. This conductor is most extensive and strongest conductor on the property. It has a moderate inphase response and it is rated as a "fair" conductor. It appears that conductive overburden is also contributing to the E.M. response in this case also. The E.M. profile suggest this conductor dips towards the south and the depth to this conductor is estimated to be 30 m. An I.P. survey and magnetometer survey over this zone would better define the nature and orientation of this conductor.

Anomaly "C"

This conductor extends from L6E, St. 500N to L8, St. 470N. The anomaly appears to be caused by conductive overburden. No further work is warranted on this zone at this time.

INSTRUMENTATION cont'd

Anomaly "D"

Anomaly "D" strikes NW-SE from L0, St. 50S to L3E, 290S. This conductor is fairly weak and it is conductive overburden is likely the cause of this anomaly. This zone does not warrant any further work at present.

Anomalies "E" & "F" & "G"

Anomalies "E", "F" and "G" are located on L4E, St. 290N; L8E, St. 390N, and L5 St. 100S respectively. These are weak discontinuous crossovers which are believed to have been caused by conductive overburden. No further work is necessary on these zones.

CONCLUSIONS

Two interesting electromagnetic conductors were outlined on the Carl Creek property. Neither of these conductors appear to be related to known zones of mineralization on the property. Therefore, follow-up work on this property should include an I.P. survey over the established V.L.F. anomalies and known zones of mineralization. This I.P. survey should be carried out in conjunction with a proton precession magnetometer survey. These two surveys would help to delineate any disseminated zones which may carry economic gold values.

RECOMMENDATIONS

Further exploration work on the Carl Creek property should include the following:

- 1) A proton precession magnetometer survey should be carried out over the whole property.
- 2) A detailed geological mapping and sampling program should be initiated as soon as possible.
- 3) An I.P. survey should be carried out over selected V.L.F.-E.M. targets and known zones of mineralization after steps (1) and (2) are completed.

BIBLIOGRAPHY

Darke, K.H.

- 1983 - Preliminary Exploration report
on the Akwesekwa Lake claim
group, Kenogaming Twp., Nor. Ont. 21p

Geonics

- 1979 - Operating Manual for E.M.-16
V.L.F-E.M., 78p

Jones, D.

- 1981 - Geophysical Report on the Fault
Lake Project, Detour Lake, 21p

APPENDIX #1

Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature* components of the secondary field with the polarities indicated.

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

Principle of Operation

The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.



Specifications

Source primary field	VLF transmitting stations.	Reading time	10-40 seconds depending on signal strength.
Transmitting stations used	Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.	Operating temperature range	-40 to 50° C.
Operating frequency range	About 15-25 kHz.	Operating controls	ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature, dial $\pm 40\%$, inclinometer dial $\pm 150\%$.
Parameters measured	(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).	Power Supply	6 size AA (penlight) alkaline cells. Life about 200 hours.
Method of reading	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone.	Dimensions	42 x 14 x 9 cm (16 x 5.5 x 3.5 in.)
Scale range	In-phase $\pm 150\%$; quadrature $\pm 40\%$.	Weight	1.6 kg (3.5 lbs.)
Readability	$\pm 1\%$.	Instrument supplied with	Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional), set of batteries.
		Shipping weight	4.5 kg (10 lbs.)

GEONICS LIMITED

Designers & manufacturers
of geophysical instruments

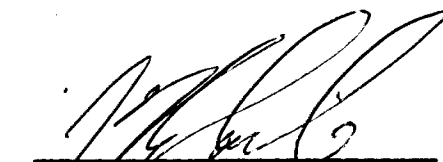
subsidiary of
Deering Milliken Inc.

2 Thorncliffe Park Drive,
Toronto/Ontario/Canada
M4H 1H2
Tel: 425-1824
Cables: Geonics

CERTIFICATE

I, John Kevin Filo of Timmins, Ontario hereby certify
that:

- 1) I hold an Honours B.Sc. degree in Geology from Laurentian University, Sudbury, Ontario (1980).
- 2) I have practiced my profession in exploration continuously since graduation.
- 3) I have based my conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of field work conducted on the property during July 1983, which was carried out under my supervision.
- 4) I hold an interest in the Carl Creek claims and I expect to receive approximately 60,000 shares under the Carl Creek option agreement.



J.K. Filo, H.B.Sc.



Ministry of
Natural
Resources

Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

Sept. 1200

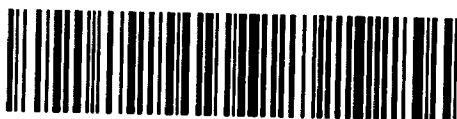
Report # 179

Instructions - Please type or print.

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list.
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File 652688

The



42A04NW0141 2.5620 KENOGAMING

900

Type of Survey(s) MAGNETOMETER & EM I.G SURVEY		Prospector's Licence No. M-21209	
Claim Holder(s) KEVIN J. FILO		Address 143 Dome Ave., South Porcupine, Ontario	
Survey Company INGAMAR EXPLORATIONS LIMITED	Date of Survey (from & to) 15 06 83 12 07 83	Total Miles of Line Cut 5 miles	
Name and Address of Author (of Geo-Technical report) KEVIN J. FILO			

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	40
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reversal and enter total	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	652688				
	652689				
	652690				
	652691				
	652692				

RECEIVED

JUL 21 1983

MINING LANDS SECTION

RECORDED
JUL 12 1983

RECORDED
JUL 13 1983

Expenditures (excludes power stripping)

Type of Work Performed	<i>see</i>	
Performed on Claim(s)	<i>see</i>	
Calculation of Expenditure Days Credits	Total Expenditures	Total Days Credits
	\$ <input type="text"/>	+ 15 = <input type="text"/>

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date July 12/83	Recorded Holder or Agent (Signature) <i>Maurice Hibbard</i>
--------------------	--

For Office Use Only		Total number of mining claims covered by this report of work. 5	
Total Days Cr. Recorded 300	Date Recorded July 12, 1983	Mining Recorder <i>[Signature]</i>	Branch Office Regional Mining Recorder

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying
Maurice Hibbard, Cedar Hill

CONNAUGHT, ONT. PON 1A0	Date Certified July 12/83	Certified by (Signature) <i>[Signature]</i>
-------------------------	------------------------------	--



Oct. 28/83

Mining Lands Comments

- Maps and report not signed.
 - Map not covered in report & no map. imp. signed submission?

To: Geophysics

Mr. Barlow.

Comments

Approved Wish to see again with corrections Date Nov 8/83 Signature [Signature]

To: Geology - Expenditures

Comments

Approved Wish to see again with corrections Date Signature

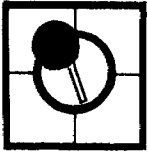
To: Geochemistry

Comments

LO

Approved Wish to see again with corrections Date Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)



INGAMAR EXPLORATIONS LIMITED

CEDAR HILL CONNAUGHT, ONTARIO P0N 1A0
TEL. (705) 433-3551 or (705) 264-3100
TELEX 067-81502

September 4, 1983

Ministry of Natural Resources
Land Management Branch
Whitney Block, Room 6450
Queen's Park
TORONTO, ONTARIO
M7A 1W3

RECEIVED

SEP 10 1983

MINING LANDS SECTION

ATTENTION: MR. E.F. ANDERSON, Director

Dear Sir:

Please find enclosed two copies of the Geophysical Report on the Kenogaming Property for the Carl Creek Resources Ltd.

Originally a Work Report was filed for Mag and V.L.F.-E.M. on this group but due to a malfunction of the magnetometer instrument we are not able to file the Mag data at this time. This work will be completed and filed in the near future.

Thank you.

Sincerely,
INGAMAR EXPLORATIONS LIMITED

Irma Hibbard, Vice-president
Enc.

IH/ab

179

2.5820

1983 09 23

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical
(Electromagnetic and Magnetometer) survey submitted under
Special Provisions (credit for Performance and Coverage) on
mining claims P 652688 et al in the Township of Kenogaming.

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
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

A. Barr:mc

cc: Kevin J. Filo
143 Dome Avenue
South Porcupine, Ontario
PON 1H0

2.5820

1984 01 18

Your File: 129

Our File : 2.5820

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Geophysical (Electromagnetic) Survey on Mining
Claims P 652688 et al in the Township of Kenogaming

The Geophysical (Electromagnetic) Survey assessment work credits as shown on the attached statement have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

J.R. Morton
Acting Director
Land Management Branch

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

M.E. Anderson:sc

cc: Kevin J. Filo
143 Dome Avenue
South Porcupine, Ontario
P0N 1H0

cc: Resident Geologist
Timmins, Ontario

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

1984 01 18

Our File: 7561 1v2

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Kevin J. Filo recorded 20 days Magnetometer assessment work credits on each of the mining claims P 652688 to 92 inclusive on July 12, 1983.

The survey reports and maps were not submitted to the Minister within the time prescribed by Section 77 of the Mining Act.

You are hereby authorized to delete the work credits recorded on July 12, 1983 from each of the claim record sheets. Please inform the recorded holder accordingly.

Yours very truly,

J.R. Morton
Acting Director
Land Management Branch

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

M.E. Anderson:sc

cc: Kevin J. Filo
143 Dome Avenue
South Porcupine, Ontario
PON 1H0

EM

2.5820

652688

✓

89

✓

90

¼

accept as is

91

✓

92

✓

Sewell Twp. M.1102

THE TOWNSHIP OF
OF
KENO GAMING

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND ● or (P)
- CROWN LAND SALE C.S.
- LEASES (L)
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- PATENTED S.R.O.

NOTES

400' Surface Rights reservation along the shores of all lakes and rivers.

DATE OF ISSUE
DEC 10 1993
Mines Dept. of Natural Resources
105-2510

PLAN NO.- **M.967**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Penhorwood Twp. M. 1055

Pharand Twp. M. 306

Crothers Twp. M. 742

Regan Twp. M.1075



