

REPORT ON GROUND VIEW AND GROUND MAGNETICS

POTIMO FOLINI, JONIARIO

BY JOSE LUIS SEARA

GOLD FIELDS MINING CORPORATION MISSISSAUGA, ONTARIO.

RECEIVED

JUN 2 5 1982

MINING LANDS SECTION

REPORT ON GROUND VLF AND GROUND MAGNETICS

Potimo Foleyet, Ontario

By Jose Luis Seara

1. INTRODUCTION:

In March 1982 line cutting and ground geophysics were carried out by Gold Fields Canadian Mining Ltd. A total of 34.98 km of grid were cut and chained. Geophysical follow up consisted of 31 km of ground VLF data acquired on 26 lines, with station intervals of 25 m. Ground magnetics consisted of 35.5 km of magnetics data required on 26 lines at a station interval of 25m.

2. SURVEY LOCATION:

The survey location is located in the Foleyet region (Northeastern Ontario), about 60 miles from Timmins on Highway 101. Palimar Road is located 21 km from Foleyet, 300 m from Highway 101 on Palimar Road is Horwood Dom Road (left turn). Horwood Lake is approx. 20 km from this point. Potimo grid is 31 km south on Horwood Lake.

3. DESCRIPTION OF GRID:

Main base line 0+00 was turned off existing base line at Azimuth of 68 degrees from the Horwood and Dale Township lines. Lines were turned off every 125 m. and chained at 25 m. station intervals.

Lines west of Line 0+00 were off of sub base line $7+50N_{\star}$

4. GEOLOGY:

The Potimo claim group is underlain by an east-west trending sequence of mafic volcanics. An E.-N.E. trending shear zone occurs on the property. The main

shear is composed of carbonatized mafic volcanics intruded by dykes of quartz-feldspar porphyry.

5. TOPOGRAPHY:

Gently rolling forested area with steep slopes near lake. Part of western end of the grid is on Horwood Lake.

6. SURVEY PERSONNEL:

Magnetics: Bryan Strapp Dave Glidden

VLF: Gayle Fox Bryan Strapp

7. EQUIPMENT:

7.1 Ground VLF:

The equipment used during the survey was the Phoenix VLF-2. This receiver measures the orientation and magnitude of the major and minor axis of the ellipse of polarization, by means of the parameter dip angle (in degrees) and resultant field strength, RFS (in percent).

7.2 Ground Magnetics:

The measurement of earth's total field were taken with the EDA total field magnetometer Model PPM-300 providing a 0.1nT sensitivity. Diurnal change was monitored by a total field base station EDA Model PPM-400.

8. METHOD AND PROCEDURE:

8.1 Ground VLF:

The VLF method uses powerful radio transmitters that induce electric currents in conductive bodies. The direction of the flux of lines is horizontal and perpendicular to the VLF transmitter. The Cutler, Maine station (NAA, 17.8 KHz) was selected.

Dip-angle and field strength readings were taken every 25 m., making a total of 1240 readings.

8.2 Ground Magnetics:

Measurement of the total field were taken every 25 meters. All magnetometers used in the survey are programmable, automatically recording field readings, time of readings, line and station co-ordinates, a qualitative measurement of the gradient imposed on the sensor and signal strength or orientation of the sensor. Thus, the diurnal corrections are accomplished automatically by cable connecting each field unit in turn to the base station recorder and activating a pre-programmed correction program.

The base station recorder will interpolate and apply the diurnal correction, subtract the reference field and pass the survey data to a DCU-400 printer.

Base Station was located on 0+70N at 6+15E on the Pine Cone property. Base station interval was 20 seconds, with a value of 59,488 gammas. (A total of 1420 field stations were recorded).

9. DATA PRESENTATION:

9.1 Ground Magnetics:

Total field is presented on maps MAG-1 and MAG-2.(Scale 1:2500).

9.2 Ground VLF:

Two methods or presentation are utilized:

- a) Profiles plots of true dip angle in degrees (1 cm = 10 degrees) together with the field strength in contour format. Present on maps VLF-1 and VLF-2.
- b) A contour plan section of the convolution of the Fraser Filter and the dip angle is presented in Maps FF-1 and FF-2.
- 9.3 Interpretation overlay map number INT-1.

10. RESULTS AND INTERPRETATION:

On the basis of magnetic background several domains have been discriminated, see map number INT-1, mainly

felsic, intermediated and mafic volcanics. Also a possible intrusive structure has been located north of the property that has the feature of an intrusive plug. This plug appears to be faulted, and therefore potentially attractive for gold deposition.

Two major faults cross the property East-West and a possibility of Syncline folding is also possible at the East side, see map number 4b.

The VLF conductors or shear zones have been marked on the overlay in some cases the anomalies coincide with boundaries of the different domains.

11. CONCLUSIONS AND RECOMMENDATIONS:

The magnetics and VLF data have been able to delineate some clues about the geology of these claims. Three different geological domains were found with magnetics. Different faults mainly running E-W have been depicted.

Special attention should be given to the intrusive plug and its associated fault.

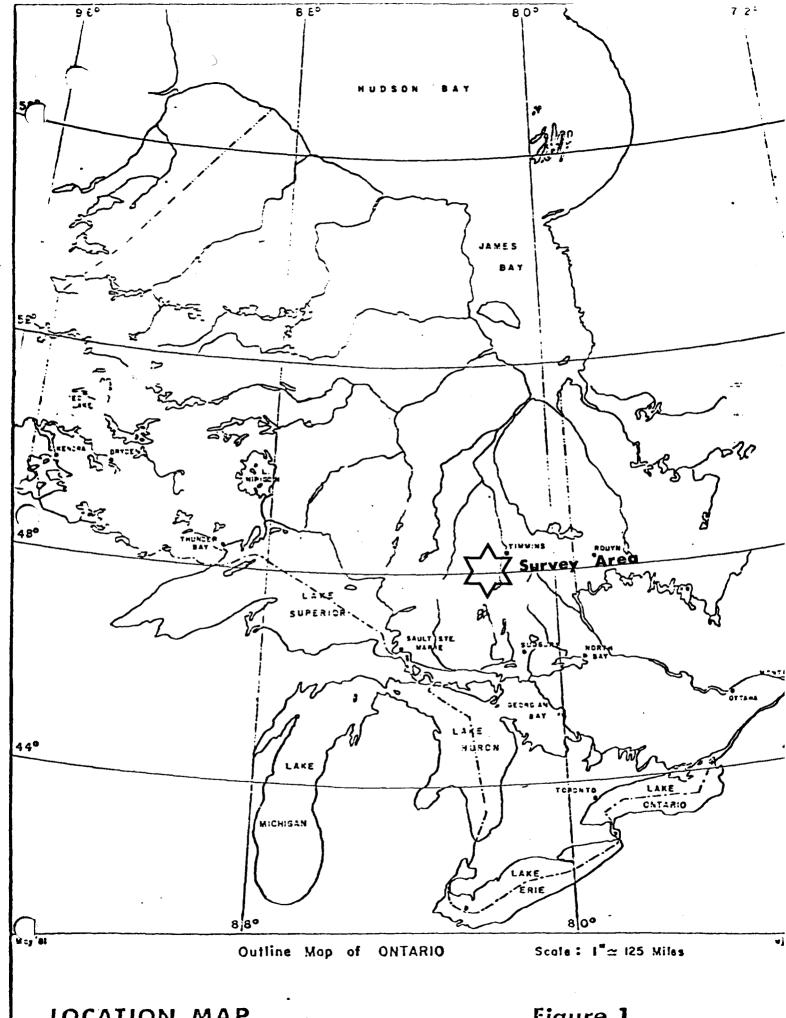
It is recommended to carry out some detail I.P. surveys over some of the areas mentioned above if soil geochemistry gives positive results.

Respectfully submitted,

Jese Luis Seara, M.Sc.

Senior Geophysicist

GOLD FIELDS Mining Corporation



LOCATION MAP

Figure 1

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

#335-230 Lakeshore Road E. Mississauga L5G1G8

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OFFICE USE ONLY

837 (5/79)



Ministry of Natural Resources

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)_	Magnetomete	r and Electromagnet	ic - VLF	(Potimo Prop	perty)
Township or Area_	Horwood Tow	nship		MINING CLAD	AS TRAVERSED
Claim Holder(s)	Gold Fields	Resources Canada L	<u>imited</u>		merically
` '		East, Mississauga	1		·
Survey Company	Gold Fields	Resources Canada L	imited	·P 625901 P	625935
Author of Report _	Jose L. Sea			(prefix)	(number) 625936
-	#335-230 La	keshore Rd. E. Miss	issauqa	625902	
Covering Dates of S		-		625903	625937
_		(linecutting to office)			625938
Total Miles of Line	Cut <u>3.4.9</u>	8 Km.		30,000	625939
SPECIAL PROVI]	DAYS	625906	625940
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		•••••		TOTAL CLAIMS	<u> 27</u>

GEOPHYS: "AL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey VLF - 1240 1240 Mag - 1420 Number of Stations -___Number of Readings _ 25 metres 125 metres _Line spacing __ Station interval 1"=200 (dip angle) 1"=100 (horizontal field strength) Profile scale_ 25 gammas Contour interval .. Proton Precession Total Field Instrument ____ Accuracy - Scale constant ______.1 NT Diurnal correction method <u>automatic programmable</u> Base Station check-in interval (hours) 20 seconds Base Station location and value __0+70N at 6+15E Phoenix VLF - 2 Instrument _ ELECTROMAGNETIC Coil configuration ___ Coil separation _ 20⁰ + 10 (dip angle) (horizontal field strength) Accuracy_ ☐ Parallel line ☐ Shoot back ☐ In line Method: ☐ Fixed transmitter 17.8 Khz, Cutler, Maine Frequency_ (specify V.L.F. station) Horizontal Field Strength and Dip Angle Parameters measured. Instrument Scale constant ___ Corrections made _____ Base station value and location _____ Elevation accuracy_ Instrument __ ☐ Frequency Domain Frequency _____ Parameters – On time _____ - Off time ______ Range _____ - Delay time _____ - Integration time _____ Power ___ Electrode array _____ Electrode spacing Type of electrode _____

NDUCED POLARIZATION

115519

1983 07 25

2.4892

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

Dear Sir:

7 min 1/2500

RE: Geophysical (Electromagnetic and Magnetometer) Survey on Mining Claims P 625901 et al in the Township of Horwood

The Geophysical (Electromagnetic and Magnetometer) Survey assessment work credits as listed with my Notice of Intent dated June 30, 1983 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,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1M3 Phone: (416)965-1380

R. Pichette:mc

cc: Gold Fields Resources Canada Limited Suite 235 230 Lakeshore Road East Mississauga, Ontario L5G 1G8

cc: Resident Geologist Timmins, Ontario



Technical Assessment Work Credits

File)				_
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1983 06 30

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Recorded Holder GOLD FIELDS RE	SOURCES	S CANADA	A LIMIT	ED		
Township or Area HORWOOD TOWNSH	IIP					
Type of survey and number of Assessment days credit per claim					Mining Claims Assessed	
Geophysical						
20	dava				inclusive	
Electromagnetic	days	P	625906	to 911	inclusive	1
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Credits have been reduced because coverage of claims.	of partial					
Credits have been reduced because of c to work dates and figures of applicant.	orrectio ns					
77(16)						
Special credits under section (BC)(15g) for the	following	mining cla	ims			
5 Days Electro	omagneti	ic &	10 days	Magnet	ometer	
P625941						
P625942						
P625943						
No credits have been allowed for the followin	g mining cl	laims				
X not sufficiently covered by the survey		Insufficien	t technical o	lata filed	· · · · · · · · · · · · · · · · · · ·	
P 625935 to 940 inclusive						•
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The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60:



July 15/83

Our file:

1983 06 30

2,4892

Mr. William L. Good Mining Recorder Ministry of Natural Resources 60 Wilson Avenue Timmins, Ontario P4N 257

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

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

R. Pichette:mc

cc: Gold Fields Resources Canada Limited Suite 335 230 Lakeshore Road East Mississauga, Ontario L5G 1G8

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



Notice of Intent for Technical Reports

1983 06 30

2,4892

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



Geotechnical Report Approval

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	Comments	Miss.		
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Mining Reworder
Ministry of Matural Resources
60 Wilson Avenue
Timmins, Ontario
PAN 257

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 625901 et al in the Township of Horwood.

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 BRock, Room 6450 Queen's Park Toronto, Ontaréo M7A 1W3 Phone: 416/965-1316

J. Skura/sc

c.c. Gold Fields Resources Canada Limited Mississauga, Ontario Attn: Jose L. Seara

GOLD FIELDS CANADIAN MINING, LTD.

A Consolidated Gold Fields Group Company

230 LAKESHORE ROAD EAST, SUITE 335 MISSISSAUGA, ONTARIO L5G 1G8 PHONE: (416) 271-0181 TELEX 06-960446

June 24, 1982

Mining Lands Section Land Mangement Branch Ministry of Natural Resources Room 6450, Whtiney Block Queen's Park

Attention: Ms. J. Skura

Dear Madam:

Enclosed is a report and maps (in duplicate) for a Geohpysical (Electromagnetic - VLF and Magnetometer) survey on 27 mining claims in Horwood Township.

Yours very truly

Land Records Clerk encl.

(Mrs) Susan Hurst

cc: W. Troup

R. Zimmerman File: CA 5038 RECEIVED

JUN 2 5 1962

MINING LANDS SECTION

