

REPORT ON VLF-EM AND MAGNETOMETER SURVEY

CLAIMS TB 653958 - 962 incl.

653978 - 979

653998 - 999

PAYS PLAT LAKE AREA NTS 42-D-14

RECEIVED

HOV 2 5 1982

MINING LANDS SECTION

SUMMARY

A magnetometer and a VLF-EM survey was carried out over claims TB 653958 - 653962 incl., 653978 - 653979 and TB 653998 and 653999 in the Pays Plat Lake area. Several moderate to strong VLF-EM conductors were discovered in areas of moderate magnetics.

Further EM surveys as well as geological mapping and geochemical samples are not only recommended but are planned for 1983.

INTRODUCTION

The following report summarizes the result of a magnetometer and a VLF-EM survey carried out from Oct. 15 - Oct. 21, 1982. The surveys performed by Northwest Geophysics Ltd. covered a total of 16.8 km. on 9 claims in the Pays Plat Lake Area, Thunder Bay Mining Division. The claims are registered in the name of Corporation Falconbridge Copper.

The claims	covered	are	TB	653958	T	В	653978
				653959			653979
				653960			
				653961	Т	В	653998
				653962			653999

LOCATION AND ACCESS

The claims are located approximately 25 km. north of the town of Schreiber, Ontario. Access is by floatplane to Big Duck Lake, road to the old Zenith mine or helicopter.

DETAILS OF SURVEYS

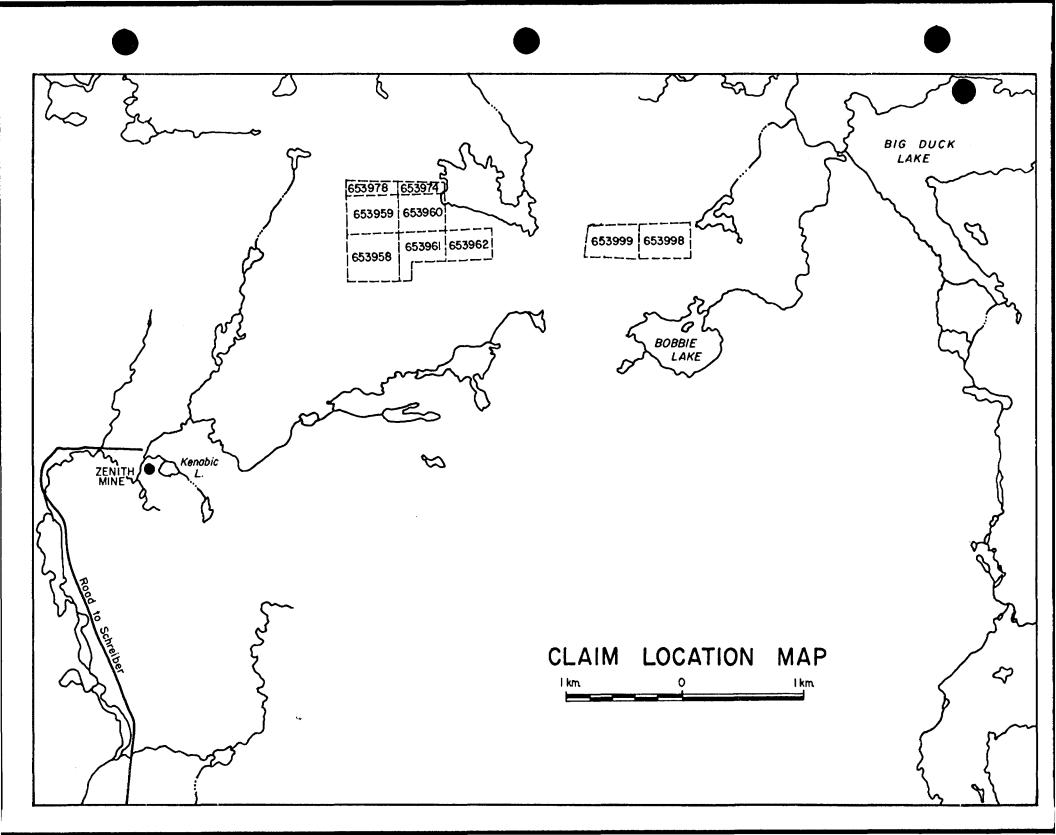
MAGNETOMETER: The survey was carried out using a Geometric G.816 Proton

Magnetometer using loops for drift control. Readings were taken at 25 m. intervals on lines spaced 100 m. apart. A datum of 59,000 gammas were used. Data were contoured at

500, 750, 1000 and 2000 gammas above datum.

VLF-EM:

The survey was carried out using a Geonics EM-16 VLF. station used was Cutler, Maine and all readings were taken facing north. Readings were taken at 25 m. intervals along lines spaced 100 m. apart. The readings were profiled with inphase on the left and quadrature on the right of the line.



SURVEY RESULTS

MAGNETOMETER:

The claims are thought to be underlain mostly by basic volcanics. This is reflected by the lack of significant magnetic relief in the area. However, a few circular "lows" near the baseline on claims TB 653958 and 653961 may be significant, as well as the few isolated magnetic highs in the area.

VLF-EM:

Several moderate to strong anomalies occur on the claims. The longest extends from L 88 + 00E to L 93 + 00E just south of BL 0 + 00E. A series of magnetic lows along this trend and the presence of a trench on the baseline at 92 + 50E makes follow-up of this anomaly imperative.

Other VLF conductors on the claims, although sometimes strong, are usually on only one line. Nevertheless, follow-up will be necessary on these as well.

CONCLUSIONS AND RECOMMENDATIONS

The results of the magnetic and VLF-EM surveys indicate that although the ground is largely underlain by mafic volcanics, significant coincident mag and VLF-EM anomalies do exist. It is recommended that a MaxMin II survey as well as detail geological mapping and geochemical sampling be carried out over these claims in the spring-summer of 1983.

A. J. Davidson

Senior Exploration Geologist

CERTIFICATE OF QUALIFICATIONS

- I, Alex J. Davidson, certify that:
- 1. I am an Exploration Geologist residing at 1425 Hamilton Ave., Thunder Bay, Ontario and have worked as such since 1972.
- 2. I hold a BSc in Geology from McGill University, 1972 and an MSc in Geology also from McGill University, 1977.
- 3. I personally supervised the work reported herein.

November 1, 1982

Date

A. J. Davidsón

Ministry of Natural Resources Report of Work

Geochemical and Expenditures)



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Type of Survey(s)					Township	or Area		
ELECTROMAGNETIC,	MAGNETIC				PAYS	PLAT LA		506
Claim Holder(s)	**************************************		25 TS	1 (14.7)	10	Prospecto	r's Licence No.	
CORPORATION FALCO	NBRIDGE COPPER		$\mathcal{L}^{(X)}$. (<u>860. p</u>	·{	T-556	<u>)</u>	
Address			•	•				
P. O. BOX 40, COM	MMERCE COURT WE	ST, TOR	ONTO, O					
Survey Company				Date of Survey			Total Miles of lie	ne Cut
NORTHWEST GEOPHYS	ICS LTD. THUND	ER BAY,	ONT.	30, 10,	82 20	10 82		
Name and Address of Author (c	of Geo-Technical report)							
A. J. DAVIDSON, c,	o CORPORATION	FALCONB	RIDGE CO	OPPER, 2606	VICTORI	A AVE. E	. THUNDER	BAY, ONT
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0€TOBER 25,1982 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

A. J. DAVIDSON, c/o CORPORATION FALCONBRIDGE COPPER, 2606 VICTORIA AVENUE

THUNDER BAY, ONTARIO P7C 1E7

Ontario

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.

Survey Company NORTHWEST GEOF	AKE AREA G-606	MINING CLAIMS TRAVERSED List numerically TB 653958 (prefix) (number)
Address of Author 2606 VICTORI Covering Dates of Survey OCTOBER Km. Total Mixes of Line Cut8.4 km.	A AVE. E. THUNDER BAY ONT.	
SPECIAL PROVISIONS CREDITS REQUESTED ENTER 40 days (includes line cutting) for first survey. ENTER 20 days for each additional survey using same grid.	DAYS per claim Electromagnetic 20 Magnetometer 20 RadiometricOther Geological Geochemical	653962 and IB 653978 659979 and IB 659998 653999
MagnetometerElectromag	ision credits do not apply to airborne surveys) netic Radiometric	
Previous Surveys	fications enclosed	
File No. Type Date	Claim Holder	
		TOTAL CLAIMS9

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 3,360 Number of Readings 3,360

Number of Stations .	3,360	Number of Rea	dings 3,360	Mag, 6720 V.L.
Station interval	25 Meters	Line spacing_	100 Me	ters
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Instrument	GEOMETRICS G-816 PROTON MAGN	IETOMETER		
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Base Station check	c-in interval (hours) 1 - 2 Hours	and the second s	No. 16. com communication of the Additional participation of the Additional Communication of t	
Base Station locat	ion and value B.L. 0 + 00 E, 1			
Instrument	GEONICS E.M16			
	Vertical			
Coil separation				
Accuracy	+			
Method:	[X] Fixed transmitter			
Frequency	CUTLER MAINE, U. S. A.	fy V.L.F. station)		
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INDUCED POLARIZATION



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RADIOMETRIC Instrument	
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•	Background Count
Overburden	(type, depth - include outcrop map)
AccuracyParameters measured	
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AIRBORNE SURVEYS Type of survey(s) Instrument(s)	(specify for each type of survey)
Accuracy	(specify for each type of survey)
	mathad
,	y method
	Line Spacing
Miles flown over total area	

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken						
Total Number of Samples	ANALYTICAL METHODS					
Type of Sample (Nature of Material)	p. p. m. 📖					
Average Sample Weight Method of Collection	p. p. b.					
Method of Concetton	Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)					
Soil Horizon Sampled	Others					
Horizon Development						
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					
General						



Technical Assessment Work Credits

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1983 08 05

Mining Recorder's Report of Work No34/

CORPORATION FALCONBRIDGE COPPER

Township or Area
PAYS PLAT LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic	TB 653958 to 62 inclusive 653978-79 653998-99
Radiometricdays	
Induced polarization days	
Other days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological days	
Geochemical days	
Man days [] Airborne	
Special provision X	·
 Credits have been reduced because of partial coverage of claims. Credits have been reduced because of corrections to work dates and figures of applicant. 	
Special credits under section 77 (16) for the following n	nining claims
No credits have been allowed for the following mining cl	nime
not sufficiently covered by the survey	Insufficient technical data filed



Geotechnical Report Approval

File			_
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Mining Lands (Comments			
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To: Geophysics	MR Barlow			
Comments	MILL ITOKOGO			

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Approved	Wish to see again with corrections	11 ay 11	183 Signature Bull	
To: Geology - I	Expenditures	./		
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Approved	Wish to see again with corrections	Date	Signature	
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Corporation Falcobridge Copper P.O. Box 40 Commerce Court West Toronto, Ontario M5L 1B4

Dear Sirs:

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 TB 653958 et al in the area of Pays Plat Lake.

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

Since we required only two copies of the report and maps, we are returning the third to you.

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

DW:sc

cc: Mining Recorder
Thunder Bay, Ontario

cc: A.J. Davidson c/o Corp Falconbridge Copper Thunder Bay, Ontario

347

1983 08 31

2,5227

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

Dear Madam:

RE:

Geophysical (Electromagnetic & Magnetometer) Survey on Mining Claims TB 653958 et al in the area of Pays Plat Lake.

The Geophysical (Electromagnetic & Magnetometer) Survey assessment work credits as listed with my Notice of Intent dated August 5, 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 1W3 Phone: 416/965-1380

R. Pichette:sc

cc: Corporation Falconbridge Copper Toronto, Ontario

cc: Resident Geologist Thunder Bay, Ontario



Your file: #347

1983 08 **0**5

Our file: **2.**5227

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

Dear Hadam:

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 Oueen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1316

R. Pichette:mc

Corporation Falconbridge Copper P.O. Box 40 Commerce Court West Toronto, Ontario M5L 1B4

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



Notice of Intent for Technical Reports 1983 08 05 2.5227

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.

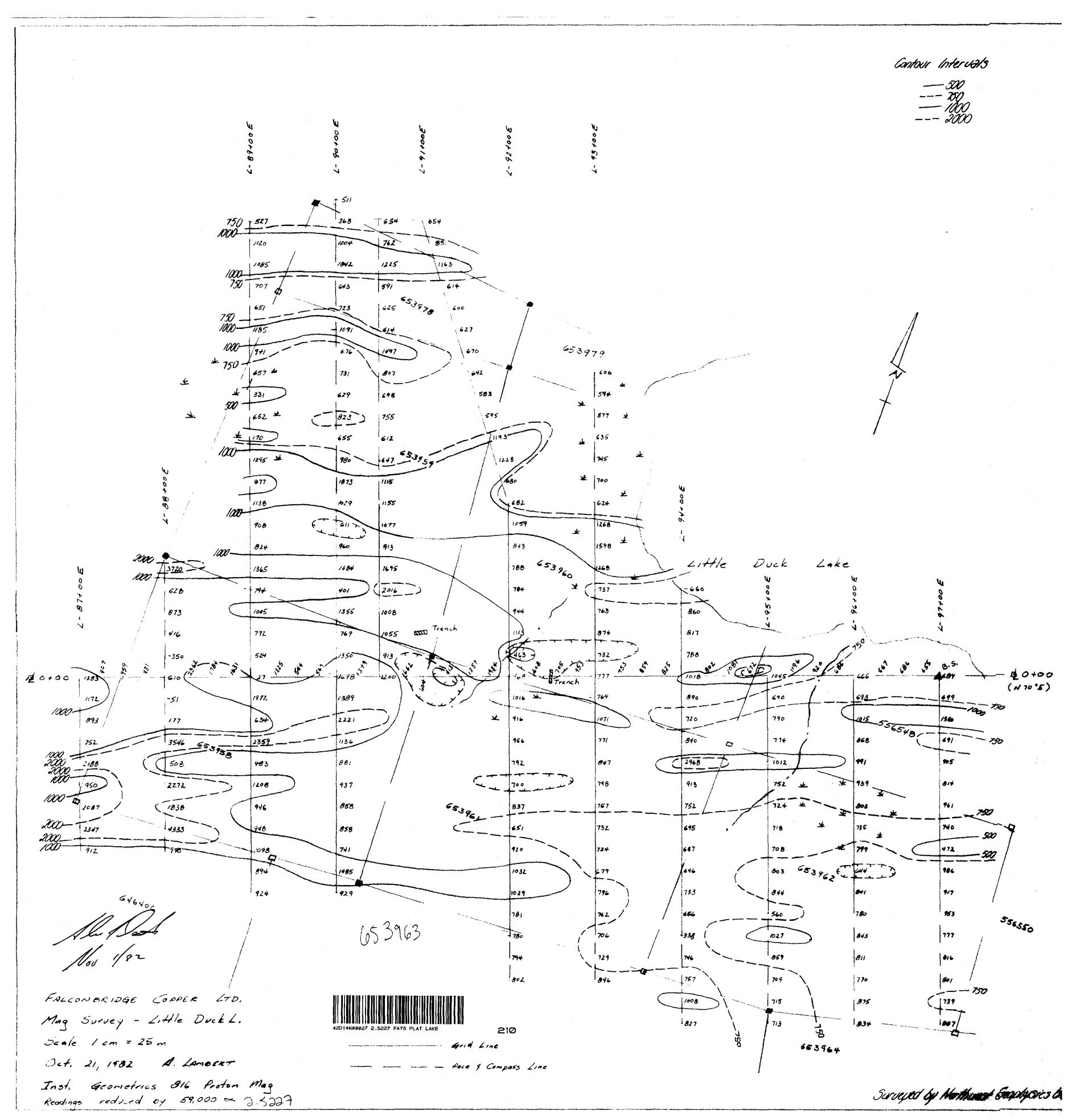
If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

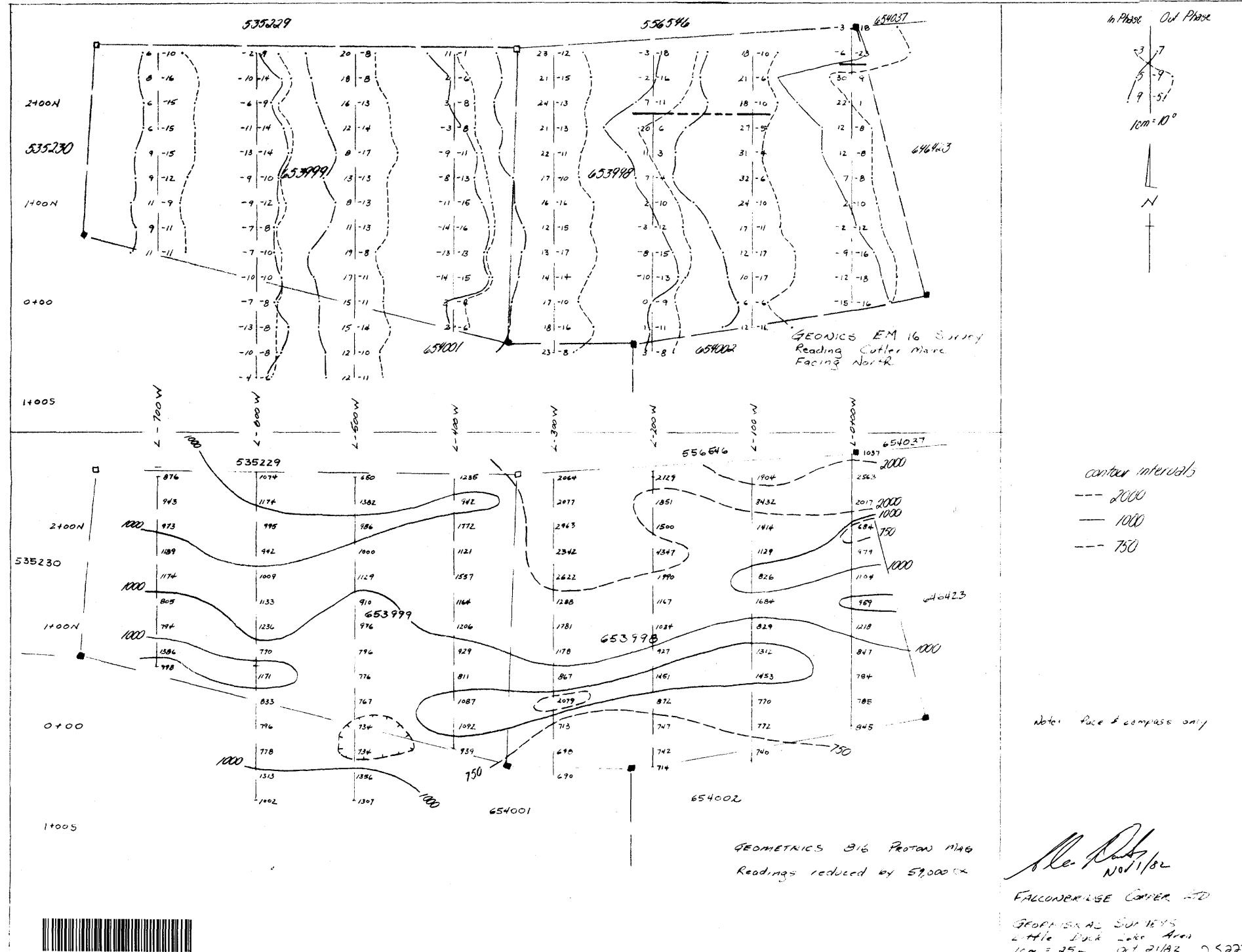
If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit 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.

File no. 2.5227

					FILE NO	FILE NO 1 < . 5227		
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TB 653958	V	1	653978	1/2	1/2			
59	-	V	79	3/4			_	_
60	14	1/24	65 39 98	~	~			
61	V	V	99	V	V	1		
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