

REPORT

ON

ELECTROMAGNETIC & MAGNETIC SURVEYS

BY

ABITIBI-PRICE INC.

MINERAL RESOURCES DIVISION

ATKINSON LAKE AREA &

LOWER DETOUR LAKE AREA, ONTARIO

RECTIVED

JAN 1 2 1982

MINING LANDS SECTION

D.A. McCombe Abitibi-Price Inc. Mineral Resources Division





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### INTRODUCTION

### PURPOSE OF SURVEY

A systematic Radem and Magnetic Survey were performed over staked claims held by Abitibi-Price Inc. for the purpose of exploring for base and precious metal sulphide deposits. The area covered by this report occurs on the Atkinson Lake Sheet (M2622) and the Lower Detour Lake Sheet (M2603), Ontario.

#### LOCATION AND ACCESS

The staked area is located in the south western portion of the Lower Detour Lake area, approximately 120 miles northeast of Timmins, Ontario. Open spruce forest and spruce bog cover most of the area with sections of open bog along the southern edge of the claim group.

Access by helicopter is necessary.

## PROPERTY

The eighty-five unpatented claims covered by the survey are held by Abitibi-Price Inc. These include:

P595660-699 P595700-744

#### PREVIOUS WORK

In 1959, the Kesagami Syndicate drilled four holes east of the presently staked claim group to test several ground EM conductors. Narrow bands of iron formation with trace chalcopyrite and sphalerite were intersected in one hole. The other conductors were explained by the presence of narrow bands of disseminated sulphides - pyrite and pyrrhotite.

During 1959-1960, Conwest Exploration performed ground magnetic and EM (HEM) surveys. Nine holes were drilled. Narrow sulphide zones (up to 75% po, minor py) in quartz-chlorite, sericite and occasionally graphitic schists explained the conductors.

AMOCO Petroleum Canada drilled three (3) holes during 1974-1975 to test ground HEM conductors located in this vicinity. Mafic to intermediate volcanics with disseminated pyrrhotite and pyrite were encountered.

In 1975 Hudson Bay Exploration and Development Co. Ltd. performed a ground HEM survey as a follow-up to an airborne electromagnetic survey. Seven EM conductors were delineated. The two holes drilled intersected pyrite, pyrrhotite, magnetite and graphite. Assay values were not encouraging.

#### **GEOLOGY**

A belt of felsic to intermediate volcanics with intercalated metasediments, striking in an east-west direction encompasses most of this claim group. The sequence is interrupted by a diorite-granodiorite intrusive which borders the northern edge of the claim group. M. Bell, deLorme Consulting Ltd. performed the geological mapping in August-September 1981.

#### SURVEY PROCEDURE

The VLF-EM survey was carried out using a Radem unit manufactured by Crone Geophysics. Readings were obtained at 100 ft. stations. Profiles of the data are plotted at 1" = 20% on maps at the back of this report.

The EM and magnetic surveys were completed during July and August 1981.

The magnetic survey was done using a Geometrics total field magnetometer. A contoured map at 500 gamma intervals is included at the back of this report.

Base lines and tie lines were read by looping back to a base station. The main base station for the grid was located at 88+00W and the base line (0+00W - 1000 gammas).

The Radem and magnetic surveys were performed by Abitibi-Price temporary personnel - Victor Bergeron and Charles Jaba.

# STATISTICS

Approximately 70 miles of grid line was cut on the eighty-five contiguous claims covered by these surveys.

Radem readings were observed at 6254 stations and magnetometer readings were observed at 12,614 stations.

### INTERPRETATION

#### RADEM

Seven EM conductors were outlined on this survey. A long conductor (A,C,D) extends from Line 104W, 20S to Line 22W and the base line. This parallels the major magnetic anomaly in this area. Conductor A and Conductor B (Line 108W, 3S to Line 100W, 1+00N) were drilled by AMOCO in 1974-1975. Disseminated pyrrhotite (10%) and pyrite (5%) with trace chalcopyrite were discovered within intermediate to mafic volcanics.

Conwest drilled Conductor D, (Line 52W, 4S to Line 22W and baseline) in 1959-60 and intersected 20 feet of massive pyrite and pyrrhotite. Hudson Bay Exploration and Development encountered disseminated pyrite, pyrrhotite magnetite and some graphite when Conductors F and G were drilled. No anomalous assays were obtained.

Conductor "C" (68+00W, 6+50S to 58+00W, 4+50S) has an associated magnetic response and may possibly be due to the presence of pyrrhotite.

Graphite and pyritic sulphides may explain Conductor "H" (60W, 24+00N to 56W, 22+00N) which lacks as associated magnetic expression.

Conductor "E" in the southeastern portion of the claim group may be due to conductive overburden.

### MAGNETICS

Maximum magnetic relief on this property is approximately 6900 gammas. A 400 foot wide anomalous magnetic high trends east—west from Line 120+00W, 19+00S to 44+00W and the base line. It then continues along the base line to 22+00W where it curves to the northeast and extends east of the property boundary at 21+00N. This conductor is probably due to pyrrhotite bearing sulphides.

### CONCLUSIONS AND RECOMMENDATIONS

(7:7)) "Combe

Most of the EM anomalies in this area have previously been drilled however, Conductors "C" amd "H" may require further attention.

Conductor "C" may be a continuation of anomalies A and D and is probably caused by massive sections of pyrite and pyrrhotite in volcanics.

Further detailed geophysics should be performed over Anomaly H and if warranted, a drill hole completed.

D.A. McCombe

DAM/nw





1983 03 11

2.4481

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

Dear Sir:

RE:

Geophysical (Electromagnetic & Magnetometer) Survey submitted on Mining Claims P 595660 et al in the Areas of Lower Detour Lake and Atkinson Lake.

The Geophysical (Electromagnetic & Magnetometer) Survey assessment work credits as listed with my Notice of Intent dated January 17, 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

## A. Barr:sc

cc: Petromet Resources Ltd
Calgary, Alberta. Attn: L. Smith.

cc: Terra Nova Exploration Toronto, Ontario

cc: Abitibi Price Inc
Toronto, Ontario. Attn: D.A. McCombe.

cc: Resident Geologist Timmins, Ontario



FEB 3 1983

Your file:

1983 01 17

Our file: 2.4481

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

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

A. Barr:sc

cc: Terra Nova Exploration Toronto, Ontario

cc: Abitibi Price Inc Toronto, Ontario Attn: D.A. McCombe.

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



# Notice of Intent for Technical Reports

1983 01 17

2.4481

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.



# Technical Assessment Work Credits

File	
2	AAQ1

Recorded Holder		
TERRA NOVA EXPLORATION		
Township or Area  LOWER DETOUR LAKE, ATKI	NCON LAYE ADEA	
	1901 EARL AREA	
Type of survey and number of Assessment days credit per claim		fining Claims Assessed
Geophysical		
Electromagnetic 40 days	P 595660 to 66 1 595668 to 99 1	
Magnetometer days	595703 to 06 1 595709 to 44 1	ncl.
Radiometric days		
Induced polarization days		
Section 86 (18) days		
Geological days		
Geochemical days		
Man days ☐ Airborne ☐		
Special provision 🔀 Ground 🕊		
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 86 (15a) for the following	mining claims	
10 days	20 days	30 days
P 595701-02	P 595700 595708	P 595707
No credits have been allowed for the following mining c	laims	
not sufficiently covered by the survey	Insufficient technical data filed	
P 595667		

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:



# **Technical Assessment Work Credits**

File	
2.4481	`

Recorded Holder	TERRA	NOVA EXPLORATOO	N		
Township or Area	LOWER	DETOUR LAKE ATK	INSON	LAKE AREAS	
Type of survey and number of Assessment days credit per claim			м	ining Claims Assessed	
Geophysical					
Electromagnetic	_days				
Magnetometer	_ days	P 595660 595668	to 99	incl.	
Radiometric	_ days	595703 · 595709 ·			
Induced polarization	_ days		••••		
Section 86 (18)	_days				
Geological	_ days				
Geochemical	_ days				
Man days 🗌 Airborn	e 🗆				
Special provision X Groun	d <b>X</b>				
Credits have been reduced because of coverage of claims.      Credits have been reduced because of corto work dates and figures of applicant.					
to work dates and rightes of approant.					(
Special credits under section 86 (15a) for the fo	llowing	mining claims			
5 days		10 days		15 days	
P 595701-02		P 595700 595708		P 595707	
No credits have been allowed for the following	mining cl	aims			
not sufficiently covered by the survey		Insufficient technical data f	led		
P 595667					

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:

Ministry of Natural Report Rep	physical, Geological, hemical and Expending	tures)	m-262 Mr. A22 The Minin	22 im 2,448 2,448 2,444 2,444	structions: -	Please typ If number exceeds sp Only day "Expendit in the "f	or print. of mining clain ace on this form, credits calcula ures" section may expend. Days Cr	ns traversed attach a list. ted in the be entered " columns.
Type of Surveyes: Electron	magnetic, Magne	tic, Ge	ology		Township o	r Area At Detour	kinson Lake	Area
laim Holder(s)						Prospecto T85	r's Licence No.	
Terra Nova Explor						10_		
P.O. Box 21 Toror urvey Company	nto Dominion Ce	ntre I	oronto,	Date of Survey		10 01	Total Miles of line	Cut
Abitibi-Price Inc.				01 07 Day Mo.	St.   Day   W	12 81 6.   Vr.	70	
D.A. McCombe Abit								в3
redits Requested per Each C		Davs per		Claims Traversed ( Mining Claim	List in numer		ence)	Europal
	Geophysical	Claim	Prefix	Number	Days Cr.	Prefix	Number	Expend. Days Cr.
For first survey: Enter 40 days. (This	- Electromagnetic	403	1481					
includes line cutting)	- Magnatometer	20	• ]	See Attache	d List			
For each additional survey: using the same grid:	- Radiometric							
Enter 20 days (for each)	- Other							
	Geological	20)	148					
	Geochemical							
FRECORD	Geophysical	Days per Claim		RECE	WED			
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Dec. 22,1981	Scorded Holder or Agent	(Signature)	4,56	Date Approve	d as Recorded	Brancip	ชิทธิกัลใ Mining Re	corder
Certification Verifying Rep	ort of Work							
I hereby certify that I have a or witnessed same during an	d/or after its completion	•			t of Work anne	xed hereto	, having performed	the work
Name and Postal Address of Pe Deborah A. McComl	, •	·Frice T	nc. P.	0. Box 21 T	Coronto De	ominior	Centre	
				Date Certified	3	Certified	hby (Signature)	neri il
Toronto, Ontario	MSK 183			Dec. 22.	1981	1.75	1. 1. 11 11	$C \in \mathcal{C} \cap \mathcal{C}^{p}$

# ABITIBI-PRICE INC. LOWER DETOUR LAKE-ATKINSON LAKE

# CONTIGUOUS CLAIMS - GEOLOGY SURVEY

Claims	P595660	Days	20	Claime	P595701	Days	20
CTATMS	P595661	Dayo	20	OTGIMB	P595702	Days	20
	P595662		20		P595703		20
	P595663		20		P595704		20
	P595664		20		P595705		20
	P595665		20		P595706		20
	P595666		20		P595707		20
	P595667		20		P595708		20
	P595668		20		P595709		20
	P595669		20		P595710		20
	P595670	,	20		P595711		20
	P595671		20		P595712		20
	P595672		20		P595713		20
	P595673		20		P595714		20
	P595674		20		P595715		20
	P595675		20		P595716		20
	P595676		20		P595717		20
	P595677		20		P595718		20
	P595678		20	•	P595719		20
	P595679		20		P595720		20
	P595680		20		P595721		20
	P595681		20	•	P595722		20
	P595682		20		P595723		20
	P595683		20		P595724		20
	P595684		20		P595725		20
	P595685		20		P595726		20
	P595686		20		P595727		20
	P595687		20		P595728		20
	P595688		20		P595729		20
	P595689		20		P595730		20
	P595690		20		P595731		20
	P595691		20		P595732		20
	P595692		20		P595733		20
	P595693		20		P595734		20
	P595694		20		P595735		20
	P595695		20		P595736		20
	P595696		20		P595737		20
	P595697		20		P595738		20
	P595698		20		P595739		20
	P595699		20		P595740		20
	P595700		20		P595741		20
					P595742		20
					P595743		20
					P595744		20

## ABITIBI-PRICE INC.

# LOWER DETOUR LAKE-ATKINSON LAKE

# CONTIGUOUS CLAIMS - MAGNETIC SURVEY

01 - 4	DEGECCO	Days	20	Clades BE05701 Days 20	^
Claims	P595660	Days	20	Claims P595701 Days 20 P595702 20	
	P595661 P595662		20	P595702 20	
	P595663		20	P595704 20	
			20	P595704 20	
	P595664 P595665		20	P595705 2	
	P595666		20		
			20	P595707 20 P595708 20	
	P595667 P595668		20	P595709 2	
	P595669		20	P595710 2	
	P595670	*	20	P595710 2	
	P595671		20	P595712 2	
	P595672		20	P595713 2	
	P595673		20	P595714 2	
	P595674		20	P595714 2 P595715 2	
	P595675		20	P595716 2	
	P595676		20		
	P595677		20		
			20		0
	P595678		20		0
	P595679		20		0
	P595680		20		0
	P595681		20		0
	P595682		20		0
	P595683				0
	P595684		20		0
	P595685		20		0
	P595686		20		0
	P595687		20		0
	P595688		20		0
	P595689		20		0
	P595690		20		0
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	P595699		20		0
	P595700		20		0
	r595/00		20		0
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				r393/44 2	0

# ABITIBI-PRICE INC. LOWER DETOUR LAKE-ATKINSON LAKE

# CONTIGUOUS CLAIMS - ELECTROMAGNETIC

Claims	P595660	Days	40	Claims	P595701	Days	40
OIGIMO	P595661		40		P595702	22,5	40
	P595662		40		P595703		40
	P595663		40		P595704		40
	P595664		40		P595705		40
	P595665		40		P595706		40
	P595666		40		P595707		40
	P595667		40		P595708		40
	P595668		40		P595709		40
	P595669		40		P595710		40
	P595670		40		P595711		40
	P595671		40		P595712		40
	P595672		40		P595713		40
	P595673		40		P595714		40
	P595674		40	•	P595715		40
	P595675		40		P595716		40
	P595676		40		P595717		40
	P595677		40		P595718		40
	P595678		40		P595719		40
	P595679		40		P595720		40
	P595680		40		P595721		40
	P595681		40		P595722		40
	P595682		40		P595723		40
	P595683		40		P595724		40
	P595684		40		P595725		40
	P595685		40		P595726		40
	P595686		40		P595727		40
	P595687		40		P595728		40
	P595688		40		P595729		40
	P595689		40		P595730		40
	P595690		40		P595731		40
	P595691		40		P595732		40
	P595692		40		P595733		40
	P595693		40		P595734		40
	P595694		40		P595735		40
	P595695		40		P595736		40
	P595696		40		P595737		40
	P595697		40		P595738		40
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	P595700		40		P595741		40
	_ 555, 50(				P595742		40
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					P595744		40
					2333144		-, 5



ABITIBI-PRICE MINERAL RESOURCES, Toronto-Dominion Centre, Toronto, Canada M5K 1B3 (416) 866-4610

January 11, 1982

Mr. E.F. Anderson Ministry of Natural Resources Land Management Branch Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3

Dear Sir:

Re:

Your file No. 2.4481. Geophysical Survey Submitted on Mining Claims P 595660 et al in the Areas of Lower Detour Lake and Atkinson Lake

Please find enclosed our Magnetometer map, in duplicate, for the above survey. The readings have been plotted at each station point.

Yours truly,

ABITIBI-PRICE MINERAL RESOURCES

Paraine Helly

Laraine Kelly Drafting Assistant RECEIVED

JAN 1 2 1983

MINING LANDS SECTION

/lak Encl.



Geotechnical

File	
1 ~	4421

Ontario	Ministry of Natural Resources	Geotechni Report Approval

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	Approved	Wish to see again with corrections	Jan		O.A. armia	
	To: Mining Lands	Section, Room 6462, Whitney Block.	(Tel: 5-1380	)		
نــــ	, -					

1982 12 16 2.4481

Abitibi Price Incprporated P.O. Box 21 Toronto Dominion Centre Toronto, Ontario M5K 1B3

Dear Sir:

RE:

Geophysical (Electromagnetic and Magnetometer) Survey submitted on Mining Claims P 595660 et al in the Areas of Lower Detour Lake and Atkinson Lake

Enclosed is the Magnetometer map in duplicate for the above mentioned survey. Please plot the readings at each station point and return the maps to this office.

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

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1380

A. Barr:sc

Encls:

cc: Mining Recorder Timmins, Ontario

January 26, 1982

Office of the 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.595660 et al, in the Areas of Lower Detour Lake and Atkinson Lake.

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

Also, please find enclosed a "Report of Work" form which was sent to us by mistake.

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

J. Skura/bk

Encl.

cc: Abitibi-Price Inc.
Toronto, Ontario
Attention: Deborah A. McCombe

