



32064SE0259 2.3513 HEARST

010

EV

REPORT ON VLF-EM SURVEY

Hearst Township, Ontario

OCT 22 1980

MINING LAIDS SECTION

Introduction

A VLF-EM survey was carried out in Hearst Township over cut lines. The results are shown on the enclosed plan.

Location, Access and Ownership

The claims covered by the survey are located in the south-central part of Hearst Township, District of Temiskaming, Ontario. The claims are numbered L476794 to 476797; L522769 to 522782; L522787 to 522789; L522792 to 522793; L532256 to 532257; L565043 to 565044; all inclusive. They are recorded in the name of Superior Northwest Inc., Box 1110, Sault Ste. Marie, Ontario.

The claims are crossed by Highway 624 about 6 miles south of Larder Lake, Ontario. Logging roads and trails give access to the claims from the highway.

Previous Exploration

There has been a considerable amount of surface prospecting in the past. A number of deep pits were noted during the survey, but no information is available on when they were dug or what if anything was found.

Geology

The Property is underlain by a volcanic-sedimentary sequence of rocks, cut by felsic to mafic intrusives. A large part of the claims are covered by extensive drift. A volcanic sedimentary contact approximately parallels the baseline west of the highway, but has changed strike to a north-north-east direction east of the highway. The intervening area is covered by extensive drift.

Survey Procedure

A grid line was laid out across the property with a baseline running about S 60° E across the property. Crosslines were cut perpendicular to the baselines at 400 foot intervals. A VLF-EM survey was carried out using a Crone Radem instrument set to the signal from Annapolis, Maryland (21.4 KHz). Readings were taken at 100 foot intervals using the procedure outlined in Appendix I.

Results and Conclusions

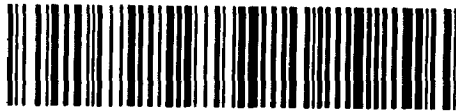
A number of cross-overs have been located which should be followed up by ground prospecting and additional geophysical surveys. There appears to be a strong anomaly along the sediment-volcanic contact, with a number of other cross-overs, the cause of which is not immediately apparent.

Respectfully submitted



Robert A. MacGregor, P. Eng.

October 17, 1980



32D04SE0259 2.3513 HEARST

900

March 23, 1981

Mr. George J. Koleszar
Mining Recorder

2.3513 ✓
2.3705

Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Re: Mining Claims L.522792-93 and L.545062-63 in Hearst
Township

Please disregard my letters of March 2, 1981 concerning mining claims L.522792-93 and L.545062-63 in Hearst Township. These claims have been covered by surveys as explained below.

The statement of magnetometer credits for claims L.476794 et al which accompanied my letter of February 18, 1981 (file 2.3513) should be amended to show that all of the claims are also entitled to 20 days electromagnetic credits. Furthermore, mining claims L.578356 and L.578357 should be added to that statement as they also are entitled to 20 days magnetometer and 20 days electromagnetic credits.

Enclosed is a list of approved credits for an electromagnetic survey that was performed between July and October, 1980 and which also covers claims L.476794 et al, including those claims listed in my first paragraph above.

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

FWM/RS

Enc.

cc: Superior Northwest Inc.
Sault Ste. Marie, Ontario

Superior Northwest Inc.

603 Queen St. East
P.O. Box 1110
Sault Ste. Marie
Ontario, Canada
P6A 5N7



R. A. MacGregor / President
Telephone: 705/949-5928

March 16, 1981

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

RE: Claims L 545062-63
L 565043-44
L 532256-57

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
BY	
MAR 20 1981	
E. F. ANDERSON	
J. R. MORTON	
J. C. SMITH	
W. GOOD	
V. LEONARD	
J. M. SMALL	
RETURN TO R. 6450	

Dear Mr Anderson,

The Geophysical (Electromagnetic) report and maps for the above claims ~~is~~ included with the report submitted for L 476794 et al in Township of Hearst which you gave notice of having received on October 22, 1980 (file 2.3513). I trust this evidence is satisfactory and that you will reinstate the assessment work credits which were cancelled for L545062-63.

Yours very truly

RAM/lg

R.A. MacGregor



Ontario

Ministry of
Natural
Resources

Notification of recording
of assessment work credits

Recording Office
4 Gov't Road East
Kirkland Lake, Ontario
P2N 1A2

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

RECEIVED

NOV - 4 1980

MINING LANDS SECTION

Date of recording of work: October 24, 1980

Recorded holder: Lucien Lacasse

Address: Larder Lake, Ontario POK 1L0

Township or Area: Hearst

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical <u>VLf</u> <u>20</u> days	L 545062, L 545063
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	

Notice to recorded holder:

Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.

Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Mining recorder
c.c. Lucien Lacasse

c.c. Robert A. MacGregor
134 Palace Drive
Sault Ste. Marie, Ont.
P6B 5H5



Ontario

Ministry of
Natural
Resources

Recording Office
4 Gov't Road East
Kirkland Lake, Ontario
P2N 1A2

Notification of recording
of assessment work credits

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

RECEIVED
NOV - 4 1980
MINING LANDS SECTION

Date of recording of work: October 24, 1980

Recorded holder: Robert A. MacGregor


Address: P.O. Box 1110


Township or Area: Sault Ste. Marie, Ontario, P6A 5N7

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	L 565043, 565044
Electromagnetic <u>VLF 20</u> days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	
Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/>	
Ground <input type="checkbox"/>	

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands


Mining recorder
c.c. Robert A. MacGregor



Ontario

Ministry of
Natural
Resources

Notification of recording
of assessment work credits

Recording Office
4 Gov't Road East
KIRKLAND LAKE, Ontario
P2N 1A2

RECEIVED

OCT 28 1980

MINING LANDS SECTION

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

Date of recording of work: October 20, 1980

Recorded holder: Robert A. Mac Gregor

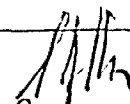
Address: P.O. Box 1110, SAULT STE. MARIE, Ontario P6B 5H5

Township or Area: HEARST TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	L 532256-57
Electromagnetic <u>VLF</u> <u>20</u> days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.



George Koleszar

Acting Mining recorder

c.c.

2.3513

February 18, 1981

2.3513

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

The Statement of Credits issued with a Notice of Intent dated February 12, 1981 for Mining Claim L.476794 et al, in Hearst Township was incorrect.

Enclosed is a revised Statement which has been approved herewith. Please inform the recorded holder and so indicate on your records.

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

FWM/RS

Encl.

- cc: Superior Northwest Inc.
Sault Ste. Marie, Ontario
- cc: Colex Explorations Inc.
Sault Ste. Marie, Ontario
- cc: Mr. G.H. Ferguson, Q.C.
Mining & Lands Commissioner
Toronto, Ontario
- cc: Resident Geologist
Kirkland Lake, Ontario



RECEIVED

AUG 26 1980

MINING LANDS SECTION

Ministry of Natural Resources
Recording Office
4 Gov't Road East
Kirkland Lake, Ontario
P2N 1A2

Notification of recording
of assessment work credits

Supervisor, Projects Unit
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

Date of recording of work: August 18, 1980

Recorded holder: SUPERIOR NORTHWEST INC.

Address: P.O. Box 1110, SAULT STE. MARIE, Ontario P6A 5N7

Township or Area: HEARST TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	
Electromagnetic 20 days	L 522769-70-71-72-73-74-75-76-77-78-79-80-81-82
Magnetometer days	L 522787-88-89
Radiometric days	L 522792-93
Induced polarization days	
Section 86 (18) days	
Geological days	
Geochemical days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input type="checkbox"/>

Notice to recorded holder:

Survey reports and maps in duplicate must be submitted to the Projects Unit, Toronto within 60 days from the date of recording of this work.

George Koleszar
George Koleszar
Acting Mining Recorder
c.c. Mr. Robert MacGregor

Reports and maps are being forwarded to the Projects Unit at Toronto.

act 7/80



Ministry of
Natural
Resources

March 5/81

February 12, 1981

Your file:

Our file: 2.3513

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

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.

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

/RS

cc: Superior Northwest Inc.
Sault Ste. Marie, Ontario

cc: Colex Explorations Inc.
Sault Ste. Marie, Ontario *PLB 559*

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



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

February 12, 1981

File: 2.3513

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 Administration Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Recorded Holder	Superior Northwest Inc.
Township or Area	Hearst Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic <u>20</u> days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Section 86 (18) _____ days Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	L.522776 L.522779 L.522780 L.522782 L.565043 L.565044 L.532257

Incomplete - see revised statement
 Feb 18/81
 JWH

Special credits under section 86 (15a) for the following mining claims

No credits have been allowed for the following mining claims

<input checked="" type="checkbox"/> not sufficiently covered by the survey	<input type="checkbox"/> Insufficient technical data filed
--	--

L.476794 to 797, incl.	L.532256
L.522769 to 775, incl.	L.522777-78
L.522781	L.545062-63
L.522787 to 789, incl.	
L.522792	
L.522793	

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:

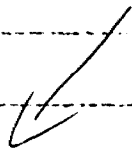
GEOLOGICAL BRANCH

Mr. R. Earlow

Date of Approval Dec 20 1980

Signature Ryan Barlow

Comments:



Mr. S. V. Burr

Date of Approval _____ 19____

Signature _____

Comments:

Dr. I. Thomson

Date of Approval _____ 19____

Signature: _____

Comments:

2.3513

1980 01 05

Superior Northwest Inc.
P.O. Box 1110
Sault Ste. Marie, Ontario
P6A 5N7

Dear Sir:

Enclosed is a geophysical survey map in duplicate covering seven (7) mining claims nos. L. 522776 et al in Hearst Twp. Please have Mr. R.A. MacGregor date, sign and return these maps to this office.

I note that you have also requested 20 days electromagnetic credits for mining claims L. 476794 to 97 inclusive, 522769 to 75 inclusive, 522781, 522787-88-89, 522792-93 yet these claims were not covered as may be seen from the enclosed maps. Please clarify.

For further information, if required, please contact Mr. F.W. Matthews (965-6918).

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

SH:ie

cc: Mr. G. Koleszar
Acting Mining Recorder
Kirkland Lake, Ontario

Superior Northwest Inc.

603 Queen St. East
P.O. Box 1110
Sault Ste. Marie
Ontario, Canada
P6A 5N7



RECEIVED

JAN 21 1981

MINING LANDS SECTION

R. A. MacGregor / President

Telephone: 705/949-5928

January 19, 1981

E.F. Anderson
Director
LAND MANAGEMENT BRANCH
Whitney Block Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Sir:

Please find enclosed two signed copies of correct geophysical survey maps for L522776 et al Hearst Twp. A copy of an incomplete map was apparently sent out in error.

Yours very truly

SUPERIOR NORTHWEST INC.

R.A. MacGregor, President

RAM/jh

Encl.

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
BY	
JAN 21 1981	
E. F. ANDERSON	
J. R. MORTON	
J. C. SMITH	
W. GOOD	
V. LEONARD	
J. H. SMITH	



Ministry of
Natural
Resources

Your file:

Our file: 2.3513

1981 01 05

Superior Northwest Inc.
P.O. Box 1110
Sault Ste. Marie, Ontario
P6A 5N7

Dear Sir:

Enclosed is a geophysical survey map in duplicate covering seven (7) mining claims nos. L. 522776 et al in Hearst Twp. Please have Mr. R.A. MacGregor date, sign and return these maps to this office.

I note that you have also requested 20 days electromagnetic credits for mining claims L. 476794 to 97 inclusive, 522769 to 75 inclusive, 522781, 522787-88-89, 522792-93 yet these claims were not covered as may be seen from the enclosed maps. Please clarify.

For further information, if required, please contact Mr. F.W. Matthews (965-6918).

Yours very truly,

A handwritten signature in cursive script, appearing to read "E.F. Anderson".

E.F. Anderson
Director
Land Management Branch

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

SH:ie

cc: Mr. G. Koleszar
Acting Mining Recorder
Kirkland Lake, Ontario

1980 00 22

2.3513

Mr. George Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received maps and reports for a Geophysical (Electromagnetic) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims L476794 et al in the Township of Hearst.

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 416/965-1316

/js

cc: Superior Northwest Inc.
Sault Ste. Marie, Ontario

cc: Colex Explorations Inc.
Sault Ste. Marie, Ontario

CERTIFICATE

I, Robert A. MacGregor, certify:

1. I am a Mining Engineer residing at 134 Palace Drive, Sault Ste. Marie, Ontario. I have worked as a mining engineer and geologist for the past 17 years.
2. I am a member of the Association of Professional Engineers of the Province of Ontario and a member of the Canadian Institute of Mining and Metallurgy.
3. I attended Queen's University for two years in the Mining-Geology course.
4. I personally carried out or supervised the field work on the subject claims.

Oct 17/80
.....
Date

.....

R.A. MacGregor



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) VLF-EM

Township or Area Hearst

Claim Holder(s) Superior Northwest Inc.

Survey Company Colex Explorations Inc.

Author of Report R.A. MacGregor

Address of Author 134 Palace Drive, S.S. Marie

Covering Dates of Survey July - October 1980
(linecutting to office)

Total Miles of Line Cut 10

MINING CLAIMS TRAVERSED
List numerically

-L476794.....L522793.....
(prefix) (number)
-L476795.....L532256..... - 1/4
-L476796.....L532257..... ✓
-L476797.....L565043..... ✓
-L522769.....L565044..... - 1/4
-L522770.....L545062.....
-L522771.....L545063.....
-L522772.....
-L522773.....
-L522774.....
-L522775.....
-L522776..... - 1/4
-L522777.....
-L522778.....
-L522779..... - 1/4
-L522780..... ✓
-L522781..... 0 1/4
-L522782..... ✓
-L522787.....
-L522788.....
-L522789.....
-L522792.....

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

Geophysical	DAYS per claim
-Electromagnetic	<u>20</u>
-Magnetometer	_____
-Radiometric	_____
-Other	_____
Geological	_____
Geochemical	_____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Oct 17/80 SIGNATURE: R. MacGregor
Author of Report or Agent

Res. Geol. _____ Qualifications 2,1102

Previous Surveys

File No.	Type	Date	Claim Holder
			<u>L.D.</u>

TOTAL CLAIMS 27

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 238 Number of Readings 238
Station interval 100 feet Line spacing 400 feet
Profile scale 1" = 40'
Contour interval

MAGNETIC

Instrument
Accuracy - Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

ELECTROMAGNETIC

Instrument Crone Radem
Coil configuration N/A
Coil separation N/A
Accuracy +/- 1/2 degrees
Method: [X] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency XXXXXXXXXX Annapolis, Maryland (21.4KHz)
Parameters measured Dip Angle of the Resultant Field

GRAVITY

Instrument
Scale constant
Corrections made
Base station value and location
Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument
Method [] Time Domain [] Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode