



32D04SE0085 2.5220 MCFADDEN

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NOV 25 1982

MINING LANDS SECTION

REPORT ON
SOIL SAMPLING AND GEOCHEMICAL SURVEY
HEARST AND MCFADDEN TOWNSHIPS, ONTARIO

by

R.A. MacGregor, P. Eng.

November 18, 1982

I. INTRODUCTION

A soil sampling geochemical survey was carried out on a group of claims in the south-east part of Hearst Township and south-west corner of McFadden Township during the summer of 1982. Soil samples were analysed geochemically for copper. Results are plotted on the enclosed map.

II. LOCATION, ACCESS AND OWNERSHIP

The property is located in the south-east part of Hearst Township and south-west corner of McFadden Township. There are 22 claims numbered L511691 to 511693; L522788 to 522789; L522792 to 522793; L523348 to 523351; L532825 to 532827; L532830, L532834 to 432835; L532837; L545046 to 545047, all inclusive; L545051 and 545054. The claims are recorded in the name of Superior Northwest Inc., Box 1110, Sault Ste. Marie, Ontario.

The claims may be reached by following cut lines east from secondary Highway 624 about 6 miles south of Larder Lake, Ontario or by a trail which leads south along the east side of Sharp Creek from the bridge over Sharp Creek on the Martin-Bird road. The Martin-Bird road is a poor gravel road running east from Highway 624 about 5 miles south of Larder Lake.

III. PREVIOUS EXPLORATION

The claims have been explored by surface work in the past as evidenced by pits scattered over the claims and seen in the geological survey. A few old pipes and drill rods were seen in the bush, evidence that drilling may have been carried out in the past. There are no records available to the author on this past work.

IV. TOPOGRAPHY

The major part of the property is covered by Pleistocene drift, gravel and swamp. Rocky hills with cliffs of 50 to 100 feet high occur along the creek margins particularly in areas of Cobalt sediments or ultramafic volcanics. The cliffs probably represent fault scarps. Rock exposure is good in areas of Cobalt sediments and some porphyry outcrop, over much of the remaining area it is very poor. A large part of the claims are covered with drift, swamp or beaver ponds with scattered very small outcrops in some of the higher areas. The property is covered with a dense second growth of poplar, birch, alder and wild cherry with black spruce in the more swampy parts. With this is a thick growth of underbrush which makes the location of small outcrops difficult. A number of beaver ponds, or now dry beaver meadows cover many of the stream courses.

V. GENERAL GEOLOGY

The general geology of Hearst Township has been described by J.E. Thomson⁽¹⁾. The area is underlain by early Precambrian volcanics, sedimentary rocks and intrusives. The early Precambrian rocks are overlain in places by later middle Precambrian sediments.

Thomson classified the volcanic rocks as Keewatin and sediments as overlying Temiskaming. Both these rocks were cut by later Algomian intrusives. A group of diorite, gabbros and serpentized peridotites are classified as Post Keewatin intrusives.

(1) J.E. Thomson Geology of Hearst and McFadden Townships
O.S.M. Vol 56 pt. 8, 1947

V. General Geology (Continued)

The geological succession of the area as proposed by Thomson is given in the "Table of Formations".

From the mapping, the sediments appear to be related to the volcanics and are probably the same relative age. If this is correct, they should not be correlated with the Temiskaming series.

VI. SAMPLING AND SURVEY PROCEDURE

A baseline was laid out across the property at an Azimuth of approximately 345° . Crosslines were cut at 400-foot intervals perpendicular to the baseline north-east and south-west. The picket lines were chained and picketed every 100 feet. The pickets were marked with fluorescent red paint for easier observation. Sampling was also carried out on two lines from another Baseline running at approximately $S60^{\circ}E$ which ties into the grid. Samples were taken from the 'B' horizon at 100 foot intervals along the lines by means of an auger at a depth of 12 to 18 inches. The samples were placed in plastic bags and numbered in the field. They were then taken by packsack to the road and later transported to Swastika Laboratories.

VII. ANALYSIS

The samples on arrival at Swastika Laboratories were sorted in number sequences dried and screened to -80 mesh. A portion was decomposed by hot aqua regia and analysed for copper by atomic absorption.

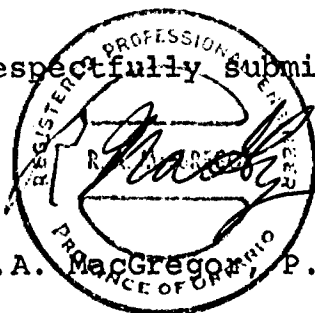
VIII. RESULTS

The results of analysis in p.p.m. are shown on the enclosed map. Check analysis are shown in brackets after the original analysis. Of the 415 samples analysed, 2 showed over 400 p.p.m. copper and 13 or 3.1% were 100 p.p.m. or greater which are stongly anomalous.

IX. CONCLUSIONS

Because of the gaciated terrain, poor drainage in many places and rapid changes in both soil type and development it is difficult or impossible to obtain soil anomalies which will contour into drilling targets. The existance of 2 very high results would strongly suggest the possibility of mineralization in the area. Some further analysis is indicated, particularly for gold and to determine if the high values are contained within sulphides. Prospecting and check sampling should also be carried out near the highly anomalous sample location to check if they can be duplicated or a source found.

Respectfully submitted



R.A. MacGregor, P. Eng.

November 18, 1982

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MINING LANDS SECTION

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TABLE OF FORMATIONS

QUATERNARY

Recent and Pleistocene: Clay, sand, gravel
Great unconformity

PRECAMBRIAN

Keweenawan or Matachewan: Diabase
Intrusive contact

Huronian (Cobalt Series) Conglomerate, greywacke, arkose
slate, quartzite.
Great unconformity

Algoman: Syenite; syenite porphyry; granite;
granite porphyry; felsite; aplite;
lamprophyre; basic syenite;
hornblende syenite; hornblende
diorite; amphibolite, hornblendite.
Intrusive contact

Temiskaming: Fine-grained sediments; greywacke,
arkose, slate, iron formation.
Conglomerate with interbedded
greywacke.
Great unconformity

Post-Keewatin: Diorite, diabase, gabbro, serpen-
tinized peridotite.
Intrusive contact

Keewatin: Early Intrusives: Quartz porphyry,
feldspar porphyry, dacite porphyry.
Basic and Intermediate Volcanics:
Greenstone, pillow lava; diabasic,
dioritic, and gabbroic lava, frag-
mental lava, agglomerate, pyroclas-
tics, dacite, talc-chlorite schists,
andesite, tuff, sheared basic lava.
Acid Volcanics: Ryolite, cherty
tuff, rhyolite tuff, tuff agglom-
erate, fragmental lavas, trachyte.

Number of Samples

200

150

100

50

0

0-5

6-10

11-15

16-20

21-25

26-30

31-35

36-40

41-45

46-50

51-60

61-70

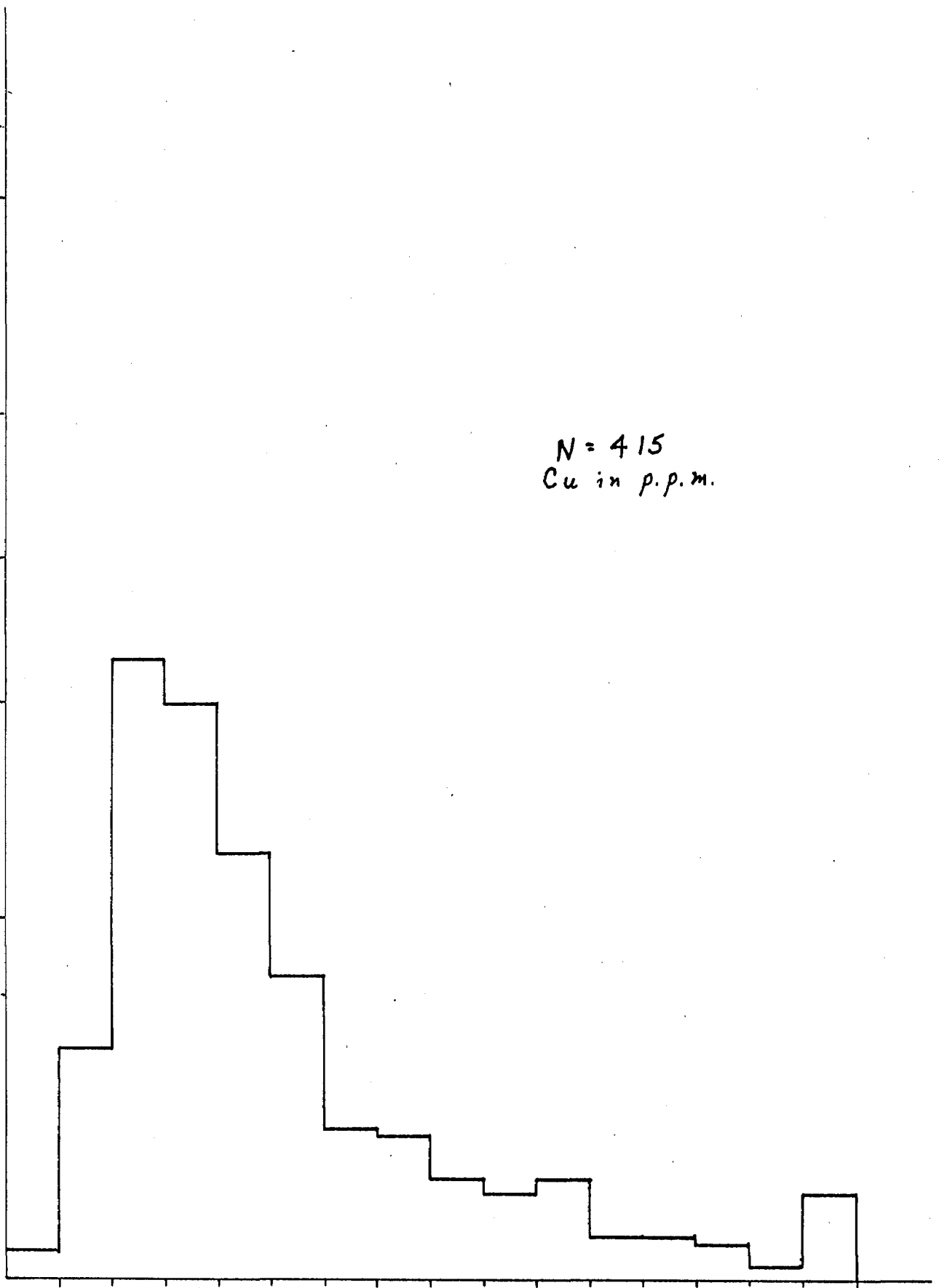
71-80

81-90

91-100

over
100

N = 415
Cu in p.p.m.



C E R T I F I C A T E

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 supervised the field work covered by this report.

DATE

R. A. MacGregor



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900

1983 10 05

2.5220

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:

RE: Geochemical Survey on mining claims L 511691 et al
in the Townships of Hearst & McFadden

The Geochemical Survey assessment work credits as listed with my Notice of Intent dated August 29, 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 6610
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

R. Pâchette:mc

Encl.

cc: Superior Northwest Incorporated
P.O. Box 1110
Sault Ste. Marie, Ontario
P6A 5N7
Attention: R.A. MacGregor

cc: Resident Geologist
Kirkland Lake, Ontario



Ontario

Ministry of Natural Resources

Technical Assessment Work Credits

File 2.5220

Date 1983 08 29

Mining Recorder's Report of Work No.

Recorded Holder: SUPERIOR NORTHWEST INC

Township or Area: HEARST AND McFADDEN TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ 15 days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input checked="" 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 511691 to 93 522789 522792-93 523348 to 50 inclusive 532825 to 27 inclusive 532834-35 532837 545046-47 545051 545054

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data filed

L 522788
 523351
 532830

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 77 (19)—60;



Sept 20/83

Your file:

.1983 08 29

Our file: 2.5220

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.

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

for R. Pichette:mc

Encls:

cc: Superior Northwest Incorporated
P.O. Box 1110
Sault Ste. Marie, Ontario
P6A 5N7
Attention: R.A. MacGregor

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



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1983 08 29

2.5220

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.

L. Lewis Admin



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

- Instructions: - Please type or print.
 - If number of mining claims traversed exceeds space on this form, attach a list.
 Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
 - Do not use shaded areas below.

The Mining Act

Type of Survey(s) **GEOCHEMICAL** Township or Area **Hearst & McFadden**

Claim Holder(s) **SUPERIOR NORTHWEST INC.** Prospector's Licence No. **T-626**

Address **P.O. Box 1110, Sault Ste. Marie, Ontario P6A 5N7**

Survey Company **Colex Explorations Inc.** Date of Survey (from & to) Day **5** Mo. **02** Day **11** Mo. **82** Total Miles of line Cut

Name and Address of Author (of Geo-Technical report) **R.A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ont. p6b 5h5**

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	
	- Magnetometer	
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	
	Geochemical	20

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	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		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	511691				
	511692				
	511693				
	522788				
	522789				
	522792				
	522793				
	523348				
	523349				
	523350				
	523351				
	532825				
	532826				
	532827				
	532830				
	532834				
	532835				
	532837				
	545046				
	545047				
	545051				
	545054				

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NOV 20 1982

MINING LANDS SECTION

LARDER LAKE MINING DIV.

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NOV 22 1982

7:18 AM NOV 21 1982 5:10 PM

Total number of mining claims covered by this report of work.

22

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

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.

For Office Use Only

Total Days Cr. Recorded **440** Date Reported **NOV 22 1982** Mining Recorder *[Signature]*

Date Approved/As Recorded *[Signature]* Branch Director

Date **Nov. 18/82** Registered Holder or Agent (Signature) *[Signature]*

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 **Robert A. MacGregor, P.O. Box 1110, Sault Ste. Marie, Ont. P6A 5N7**

Date Certified **Nov 18/82** Certified by (Signature) *[Signature]*

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>	X	<input type="text" value="7"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>	X	<input type="text" value="7"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>	X	<input type="text" value="7"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>	X	<input type="text" value="7"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

July 11, 1983

2.5220

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

Attention: R.A. MacGregor.

Dear Sirs:

RE: Geochemical Survey submitted on Mining Claims
L 511691 et al in the Townships of Hearst &
McFadden.

Enclosed is the final page of the report, in duplicate, for
the above mentioned survey. Please sign each page and return
them to this office.

For further information, 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: 416/965-1380

R. Pichette:sc

Encls:

cc: Mining Recorder
Kirkland Lake, Ontario



Ministry of
Natural
Resources

Geotechnical
Report
Approval

File 2.5220

Jan 28/83

Mining Lands Comments

~~Report not signed~~
~~No traverse lines on map~~
~~no topographic features shown~~

To: Geophysics

Comments

Approved Wish to see again with corrections Date Signature

To: Geology - Expenditures

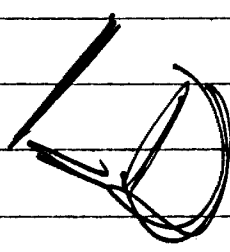
Comments

Approved Wish to see again with corrections Date Signature

To: Geochemistry

Dr. Fortescue

Comments



Approved Wish to see again with corrections Date 3/2/83 Signature JLA (Fortescue)

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

1982 12 09

2.5220

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

Dear Sir:

We have received reports and maps for a Geochemical Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 511691 et al in the Townships of Hearst and McFadden.

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

DW:sc

cc: R.A. MacGregor
Sault Ste. Marie, Ontario



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) GEOCHEMICAL
Township or Area Hearst & MCFadden
Claim Holder(s) Superior Northwest Inc.

Survey Company Colex Explorations Inc.
Author of Report Robert A. MacGregor
Address of Author 134 Palace Dr. Sault Ste. Marie
Covering Dates of Survey - Nov/82
(linecutting to office)
Total Miles of Line Cut _____

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	Geophysical	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	--Electromagnetic _____	
	--Magnetometer _____	
	--Radiometric _____	
ENTER 20 days for each additional survey using same grid.	--Other _____	
	Geological _____	
	Geochemical _____	20

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

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

DATE: Nov. 18/82 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 2. 1102

Previous Surveys

File No.	Type	Date	Claim Holder
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

<u>MINING CLAIMS TRAVERSED</u> List numerically	
<u>L511691</u>	(prefix) (number)
<u>L511692</u>	
<u>L511693</u>	
<u>L522788</u>	
<u>L522789</u>	
<u>L522792</u>	
<u>L522793</u>	
<u>L523348</u>	<u>L523349</u>
<u>L523351</u>	<u>L523350</u>
<u>L532825</u>	
<u>L532826</u>	
<u>L532827</u>	
<u>L532830</u>	
<u>L532834</u>	
<u>L532835</u>	
<u>L532837</u>	
<u>L548046</u>	
<u>L545047</u>	
<u>L545051</u>	
<u>L545054</u>	
TOTAL CLAIMS <u>22</u>	

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

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 _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken 22

Total Number of Samples 415

Type of Sample soil
(Nature of Material)

Average Sample Weight 1/2 lb.

Method of Collection Auger

Soil Horizon Sampled 'B'

Horizon Development Fair to Poor

Sample Depth 12" - 18"

Terrain _____

Drainage Development Wet-Swamp

Estimated Range of Overburden Thickness
0 - ?

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis
- 80

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory Svastika

Extraction Method hot aqua Regia

Analytical Method Atomic Adsorption

Reagents Used _____

General _____

Unsch.

L 511691	1/2	532 825	1/4	
692	✓	826	✓	
693	3/2	827	1/4	
522788	0	830	0	
789	1/2	834	3/4	
792	✓	835	1/2	
793	3/4	837	1/2	
523348	1/2	545046	1/2	small claim
349	✓	47	1/2	
350	✓	51	1/2	
351	0	54	1/4	
		19		
		20 6.5		
		19x20		
		25.5		

(15)



Ontario

Ministry of
Natural
Resources

MINING LANDS SECTION

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

Attention: Mr. R.A. MacGregor

McGarry Twp.

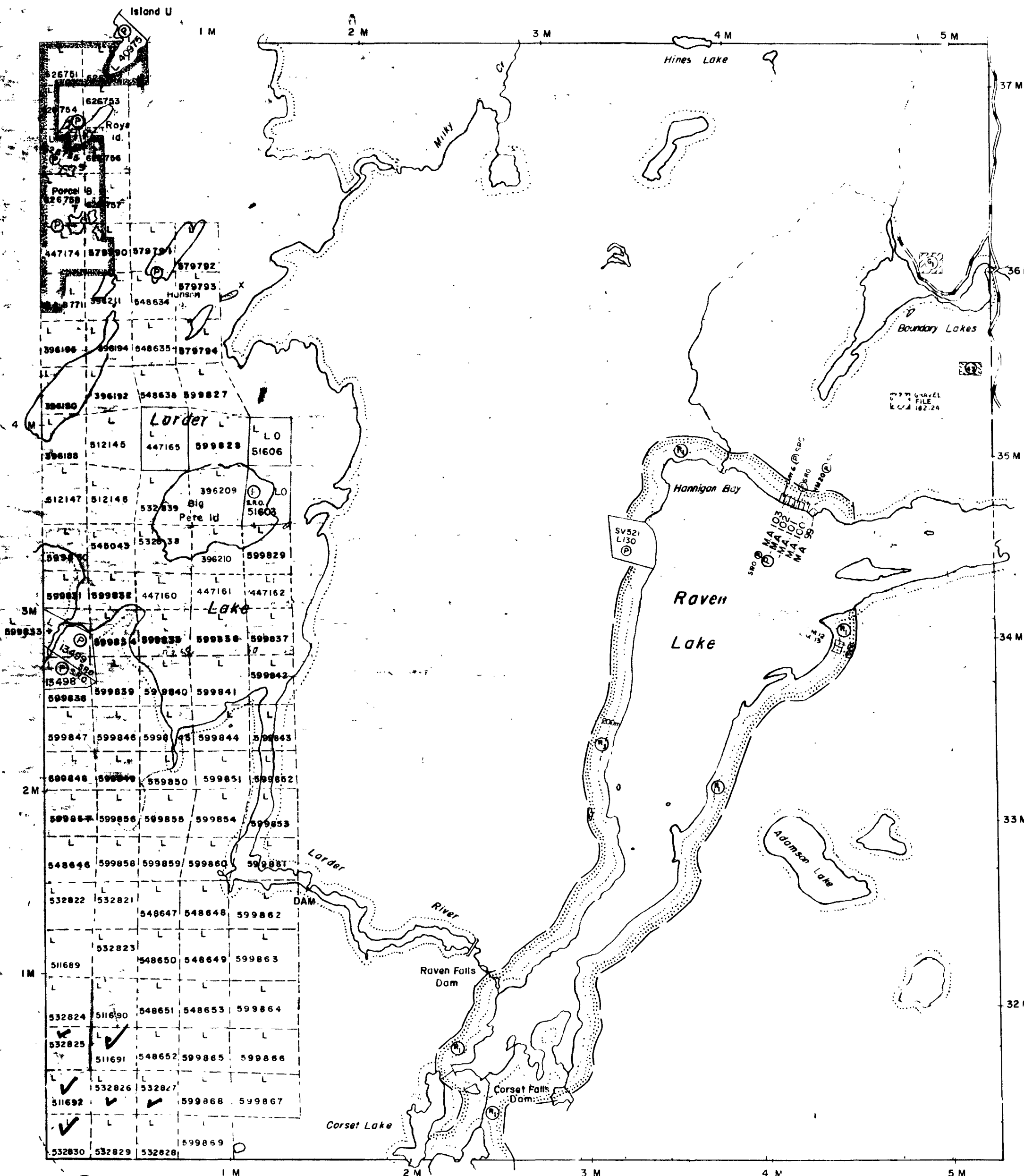
THE TOWNSHIP OF

McFADDEN

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS



PROVINCE OF QUEBEC

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	L.C.
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	Ⓢ

NOTES

400' Surface rights reservation around all lakes and rivers.

L.O. 12010 shown thus: —

Areas withdrawn from staking under Sect. 4 of the Mining Act, 1950

File	Date	Disposition
W 52/74 142124	15/10/74	S.R.O.
W 11/79 88522	19/6/79	S.R.O. M.R.

SAND and GRAVEL

(1) M.N.R. GRAVEL RESERVE 3G-15

DATE OF ISSUE

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Ministry of Natural Resources
TORONTO

PLAN NO - M.368

MINISTRY OF NATURAL RESOURCES

Rattray Twp.

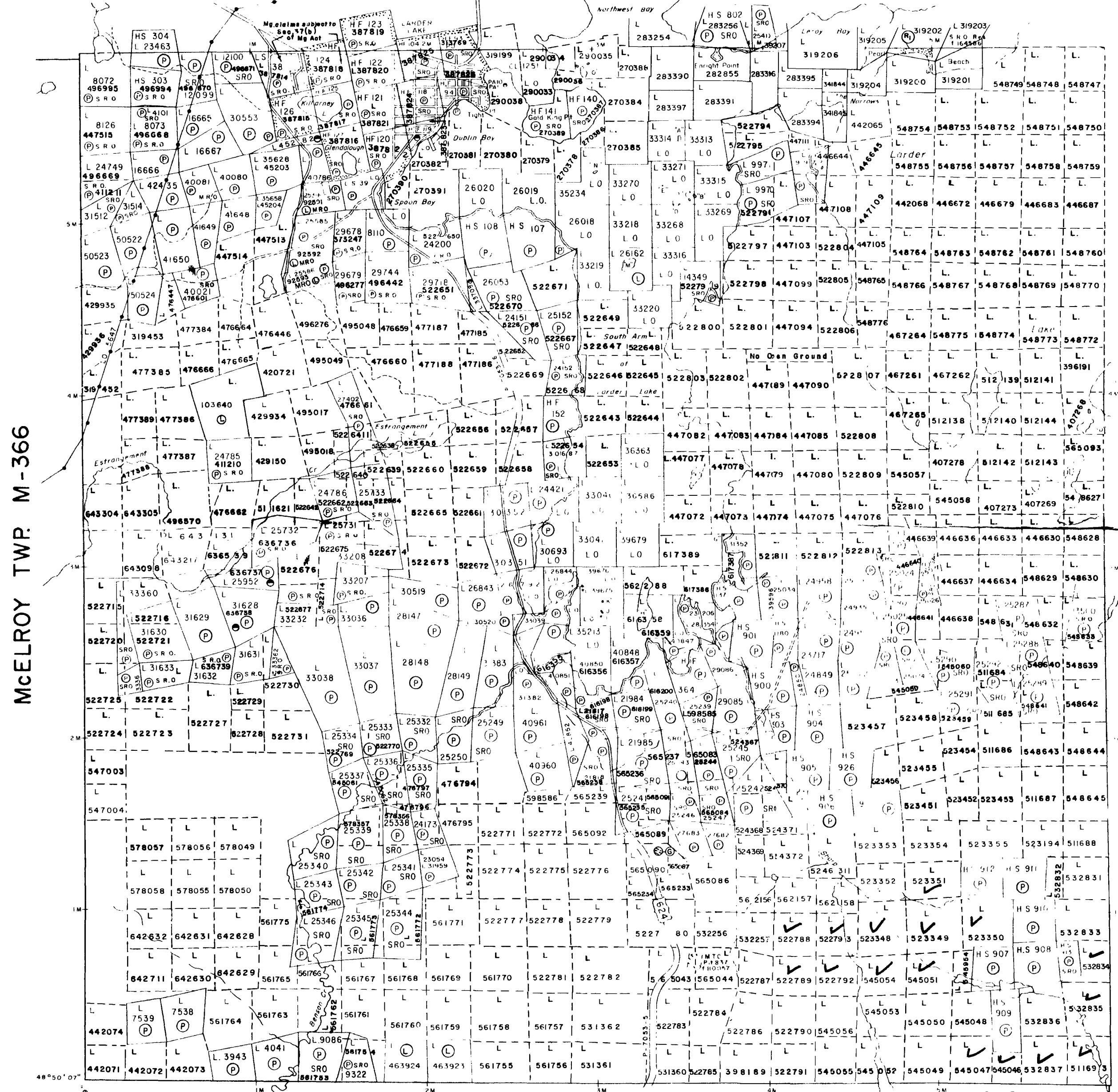


32D04SE0085 2.5220 MCFADDEN

McVITTIE TWP. M-370

THE TOWNSHIP OF
OF
HEARST
DISTRICT OF
TIMISKAMING
LARDER LAKE
MINING DIVISION

SCALE: 1 INCH 40 CHAINS



LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (CS)
- LEASES (L)
- LOCATED LAND (L)
- 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

4. Surface rights reservation along the shores of all lakes and rivers.

5. This map of Hearst lies within the boundaries of the CORPORATION of the TOWNSHIP OF LARDER LAKE File No. 1242.

Staking of mining claims within the Town of Larder Lake shown thus subject to Sec. 37(b) of the Mining Act (R.S.O. 1970).

SAND AND GRAVEL

- (G) QUARRY PERMIT

Areas withdrawn from staking under Section 43 of the Mining Act (RSO1970)

OrderNo.	File	Date	Disposition
(H) W14/80NR.	164586	26/11/80	S.R.O.

DATE OF ISSUE
FEB - 4 1983
Ministry of Natural Resources
TORONTO

PLAN NO **M-354**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

McELROY TWP. M-366

McFADDEN TWP. M-368

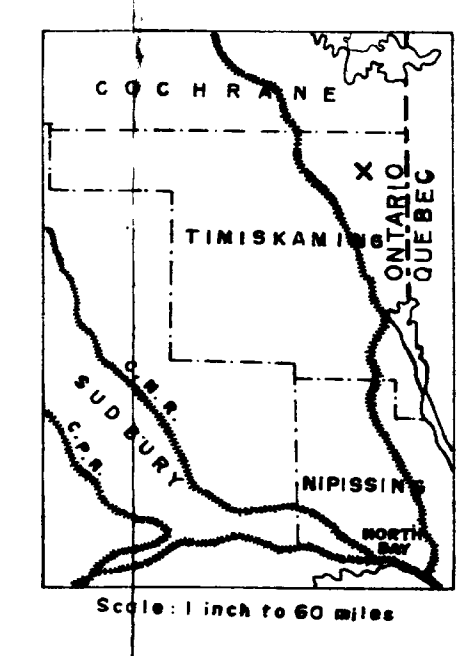
SKEAD TWP. M-387





Hearst Twp.
McFadden Twp.

Hearst Twp.
Skrad Twp.



Soil Geochemical Survey
GRACE LAKE BASELINE
SKRAD & HEARST TOWNSHIPS
 SCALE 1" = 400'
 Samples of 'B' Horizon soils
 Decomposition - Hot Aqua Regia
 Analysis - Atomic Adsorption
 Cu in ppm
 (check samples)