



411155E0075 0025C1 RATHBUN

010

PETROGRAPHIC STUDY

OF

MINING CLAIMS

574572 and 574573

IN

RATHBUN TOWNSHIP

IN

THE MINING DISTRICT OF SUDBURY

RECEIVED

JUL 14 1983

MINING LANDS SECTION

by: REINO L. VIITALA

Reino L. Viitala

C - 32251

June 1983

25681
dup



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010C

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ABSTRACT

1

The purpose of this study is to investigate the rock types found within the boundaries of these two claims, and to relate them to the existing Quartz - Carbonate and Sulphide occurrences.

Mineralization occurs in two prime areas; at the old Mondeaux site near the centre line of the claims, and at the Quartz - Stockworks intrusion at the East edge near Lake Matagamasi shore. Gold values assayed from grab samples from the Quartz - Stockworks appear to be hosted by arsenopyrite, pyrite, and a trace of tellurides.

PROCEDURE

Some 55 grab samples were collected along transects across the two claims. They were labelled, sorted, and studied to delineate the main rock types within the claim areas.

Representative samples of each rock type and areas of interest were chosen to be made into thin and polished sections for Petrographic analysis. Nine rocks were picked for thin-sectioning, and two rocks from the Matagamasi Lake shore Quartz - Stockworks required polished-sectioning.

Thin-sections were used to study the transparent minerals, and polished-sections were made to identify the metallics. The thin-sections were studied and point-counted under a Petrographic Microscope to reveal their characteristics and content.

Results were then tabulated and discussed.

Qualifications on file with E.F.Anderson, Director,
Land Management Branch,
Whitney Block, Room 6450,
Queens Park, Toronto, M7A1W3

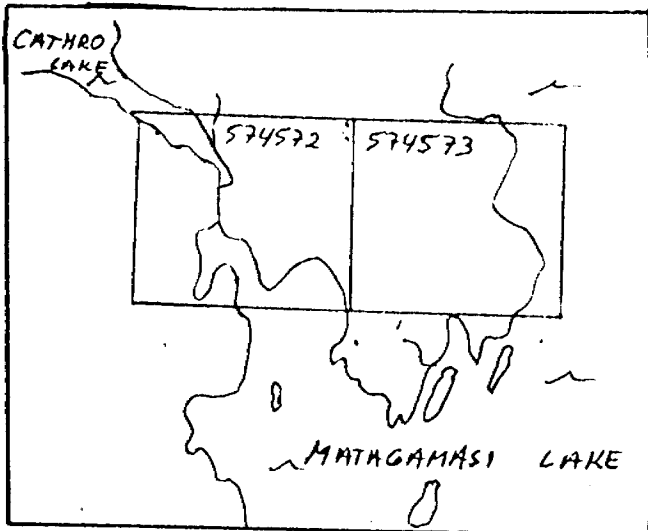
Basically three main rock types occur within the two claim area. Medium grained gabbro forms the westerly boundary on claim 574572 and the south boundary on claim 574573. Arkosic and Argillitic metasediments cover the east boundary of claim 574573 and extend into Lake Matamagasi to the east. The middle portion of both claims consists of inter-laminated and bedded greywackes. These greywackes are distorted, folded, jointed, and deformed during the gabbro - intrusive stage. The affects of this local metamorphosism is most evident along the contact northwards to Cathro Lake along the joining creek.

Jointly acting forces of this contact parallel with the North-South Fault zone under Lake Matagamasi resulted in hydrothermal activity along the contacts of the sediments and intrusive rocks. Thus resulting in the Quartz-Carbonate activity in the old Mondeaux site in the central portion of the claims, and in the Quartz-Stockworks activity at the Matagamasi Lake shore. Gold values have been assayed for both places. The gold occurance at the old Mondeaux site is inbetween the Quartz crystal boundaries as free gold. At the Quartz-Stockworks the gold occurs associated with arsenopyrite, pyrite, and some tellurides. The wall rocks do not show any metallic concentrations beyond the immediate boundaries.

SAMPLE	ROCK TYPE	PETROGRAPHIC OBSERVATIONS
8A thin-section	Metasediment	<ul style="list-style-type: none"> -Fine grain, <250 microns -Pyrite cubes in stringers - in between laminated bedding planes. -Quartzose or arkosic inclusions. -Little mica. Some chloride. -Contains 5% Metallics.
8B thin-section	Gabbro	<ul style="list-style-type: none"> -Medium grained Gabbro, 300 to 500 microns. Unaltered. -Traces of Carbonate in veinlets of Quartz. -Pyrite cubes. -Contains 5% Metallics.
8D thin-section	Gabbro	<ul style="list-style-type: none"> -Medium grained Gabbro, 300 to 500 microns. -Quartz rich, some crystalline Quartz and Quartz stringers running parallel thru it. -Traces of Carbonate - Ankerite. -Trace chloride. -Contains 5% Metallics.
8E thin-section	Meta-sediment	<ul style="list-style-type: none"> -Oxides in stringers (parallel direction) Quartz rich, shows some bedding planes - somewhat indistinct. -Chloride and traces epidote. -Variable grain size, from medium to fines. -Iron oxides in leached veinlets. -Traces alteration of carbonates. -Contains 5 - 7% Metallics

SAMPLE	ROCK TYPE	PETROGRAPHIC OBSERVATIONS
8K thin-section	Metasediment	<ul style="list-style-type: none"> -Arkosic, Quartz rich. -Some bedding planes with brecciated areas. -Medium grained. -Contains 5% Metallics, including pyrite cubes.
8S thin-section	Gabbro	<ul style="list-style-type: none"> -Medium (0.500 - 0.250 micron) size crystals. -Quartz and feldspar with >10% mica. Some alteration of the mica. -Contains 5% Metallics. -Chlorite and epidote traces.
GH-0 thin-section	Metasediment wall rock to Quartz-Carbonate vein	<ul style="list-style-type: none"> -Alteration of Carbonates, Ankerite. -Iron oxide shears, pyrite cubes. -Chloritized shears, mica along and parallel to shears. -Contains 5% Metallics.
GH-1 thin-section	Metasediment with Quartz-Carbonate vein	<ul style="list-style-type: none"> -Quartz, Carbonate- Ankerite (some alteration). -Metallics in Quartz crystal boundaries and in matrix material. -Pyrite cubes inbedded in the altered Carbonate crystals. -Contains up to 10% Metallics.
GH-3 thin-section	Meta-gabbro	<ul style="list-style-type: none"> -Chloritized along parallel planes. -Traces Carbonate alteration. -Contains 2% Metallics.

SAMPLE	ROCK TYPE	PETROGRAPHIC OBSERVATIONS
LS 1 polished section	Silicious flow	<ul style="list-style-type: none"> -Quartz rich, up to 80%. -Some feldspar. -Contains 20% Metallics. -Metallics include 70% arsenopyrite, 20% pyrite, and 10% is traces of Calcopyrite, magnetite, millerite, and sylvanite. -Quartz crystals are 0.300 micron or medium size. They show a flow direction with metallics in matrix. -Sulphides are oxidized and weathered.
LS 11 polished section	Silicious flow	<ul style="list-style-type: none"> -Silicious flow material, 80-- 85% Quartz. -Contains 20% Metallics. -Metallics include 80% arsenopyrite, 15% pyrite and traces of calcopyrite and magnetite. -Metallics are uniformly distributed in the matrix material. -Sulphides are oxidized and weathered on the crystal surfaces -Some vugs in pyrite with telluride appearing filling metallic (Sylvanite?).



80.61° LONG. 6

46.75° LAT.

MATAGAMASI LAKE

KELLY

KUKAGAMI LAKE

RATHBUN

LAKE WAHNAPIITAE

DAVIS

ASHIGAMI LAKE

SCADDING

SKEAD

SUDBURY AIRPORT

CRERAR

STREET

FALCONBRIDGE

by: Raimo L. Vaitala

C-32251

JUNE, 1983

INDEX MAP
RATHBUN TWP.

1" = 2 Mi.

WAHNAPIITAE RIVER

KUKAGAMI ROAD

HWY 17

CALLUM

STINSON

← ≈20 Mi. to Sudbury

≈60 Mi. to North Bay →

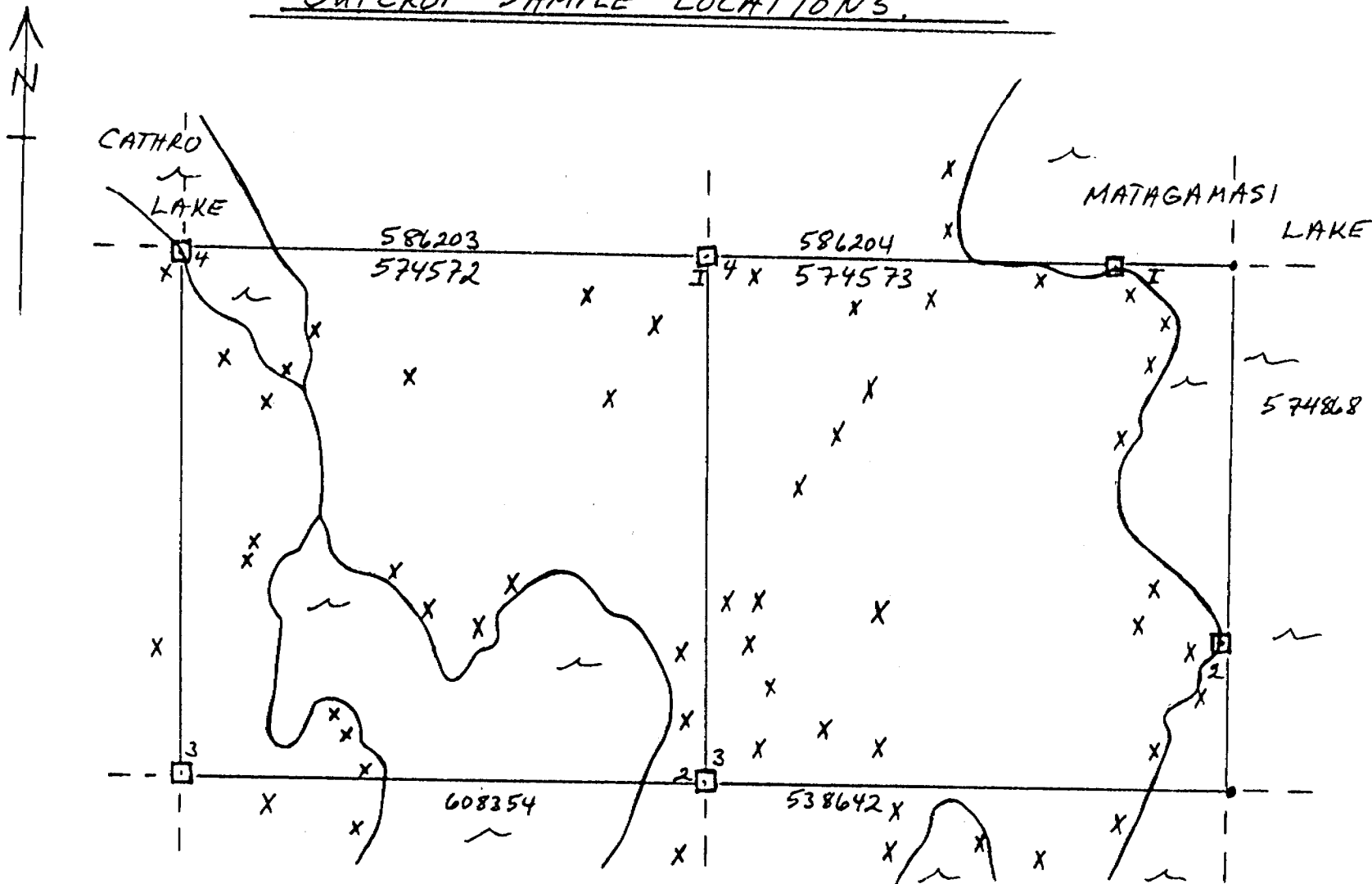
ACCESS ROAD ≈ 2.2 Mi.

CNR

CNR



OUTCROP SAMPLE LOCATIONS.



1" = 400 FT.

by: Rair. L. Viltla, June 83.
C-32251.

Rock Types and their distribution

GREYWACKES

ARKOSE ARGILLITE



GABRO

GREYWACKES ROCK TYPES AND THIN SECTION LOCATIONS

10

GREYWACKES

X
8D

X
8H

X
8K

X
8S

GH
1

GH
2

GH
3

CHERO

CHERO



Rev. L. Smith, June 1983



Ministry of Natural Resources
 Report of Work
 (Geophysical, Geological, Geochemical and Expenditures)

File 5.574572.11

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

2.5686

Type of Survey: **PETROGRAPHIC** Township or Area: **KATHBUN TWP (M. 107)**
 Claim Holder's: **MR. REINO L. VIITALA** Prospector's Licence No: **G-32251**
 Address: **RR #17, SITE-25, THUNDER BAY, ONT. P7B-6C2**
 Survey Company: **-SELF-** Date of Survey (from & to): **15 06 82 to 07 06 83** Total Miles of line Cut: **—**
 Name and Address of Author (of Geo-Technical report): **AS ABOVE.**

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	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	30
	Geochemical	

Man Days

Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	Geological	
	Geochemical	

Airborne Credits: **MINING LANDS SECTION** Days per Claim

Note: Special provisions credits do not apply to Airborne Surveys.

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
S					
	574572	30			
	574573	30			

Report & Maps Attached

SUDBURY MINING DIV. RECEIVED
 JUN 17 1983
 7:18 9:10 11:12 11:12 1:31 4:15 6:16

Expenditures (excludes power stripping)

Type of Work Performed: **SAMPLING-PREPARATION-INVESTIGATION**

Performed on Claim(s):
574572
574573

Calculation of Expenditure Days Credits

Total Expenditures: **\$ 900.00** + **15** = **60** 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.

Total number of mining claims covered by this report of work: **2**

For Office Use Only

Total Days Cr. Recorded: **60** Date Recorded: **July 13/83** Mining Recorder: *[Signature]*

Date Approved: **83.08.22**

Date: **June 7/83** Recorded Holder or Agent (Signature): *Reino L. Viitala*

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: **REINO L. VIITALA, GEOWAY TECHNOLOGIST,**

Date Certified: **June 7/83.** Certified by (Signature): *Reino L. Viitala*

Assessment Work Breakdown

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

Type of Survey

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

Type of Survey

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

Type of Survey

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

Type of Survey

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

EXPENDITURES.

RATE \$15.00/hr, 1 DAY = 8 HRS,

- SAMPLE COLLECTION, TRAVERSING, PREPARATION - 3 days = $3 \times 8 \times 15 = 360$
- MAKING THIN & POLISHED SECTIONS - 2 days = $2 \times 8 \times 15 = 240$
- MICROSCOPE STUDY + IDENTIFICATION - 1 DAY = $1 \times 8 \times 15 = 120$
- REPORT WRITING + COMPILATIONS - 1 DAY = $1 \times 8 \times 15 = 120$
- TYPING - 4 HRS = $4 \times 15 = 060$

\therefore at \$15.00 rate for 1 day credit = $\frac{\$900}{15}$

= 60 TOTAL CREDITS.

or

30 per Claim.

*PS- Thin & Polished Sections available on Request.



Ministry of
Natural
Resources

Geotechnical
Report
Approval

File 2.5686

July 20/83.

Mining Lands Comments



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900

- Need proof of expenditures.
- NEED PROOF OF EXPENDITURES

To: Geophysics

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geology - Expenditures

Mr. Kustra. MR. KUSTRA.

Comments

Approved

Wish to see again with corrections

Date

Aug 12/83

Signature

CKustra

To: Geochemistry

Comments

L.D.

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)

574572

2.5686

1983 07 15

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

Dear Madam:

We have received data for Assaying submitted under Section 77(19) of the Mining Act R.S.O. 1980 for mining claims S574572-73 in the Township of Rathbun.

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

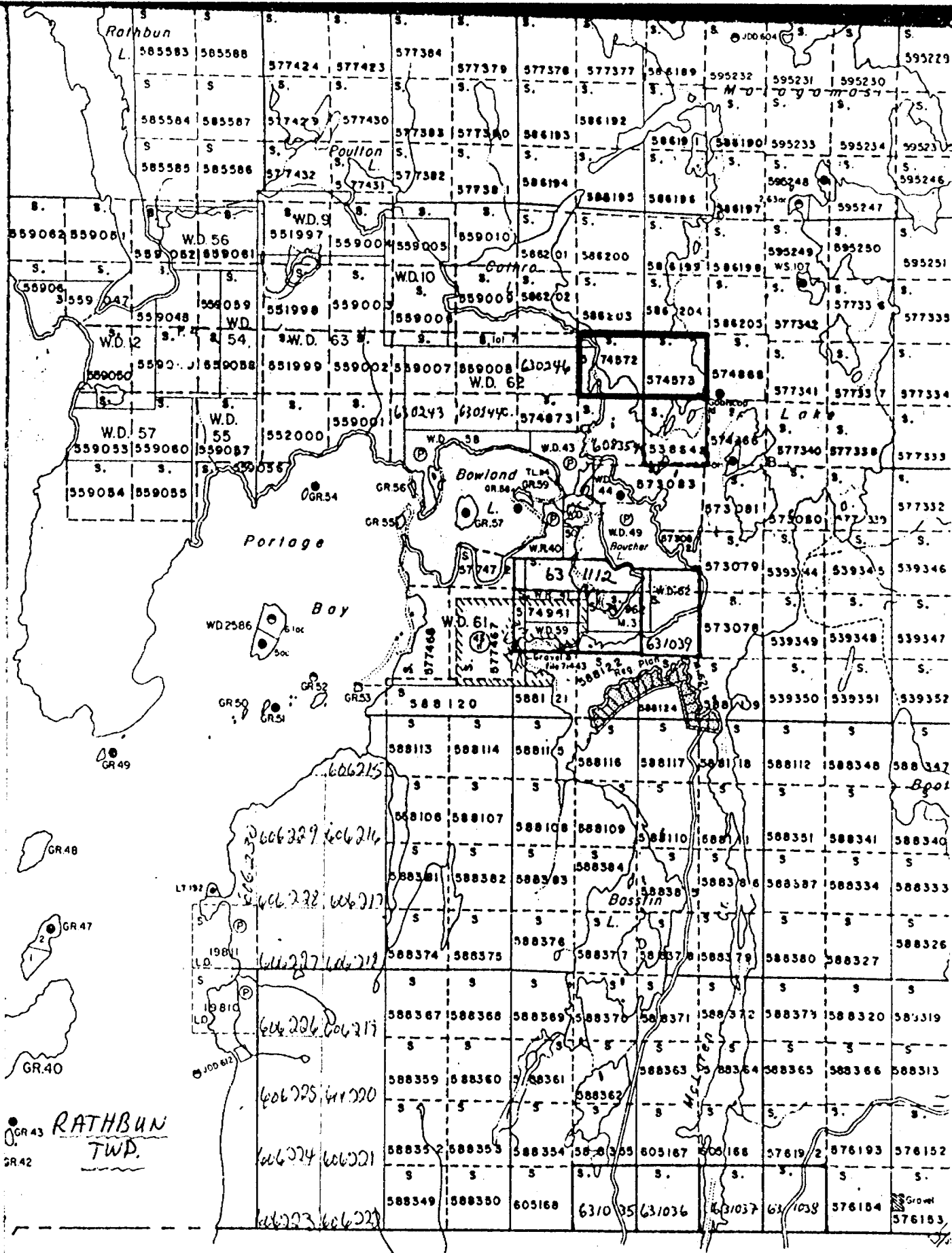
Yours very truly,

E.F. Anderson
Director
Land Management Branch

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

A. Barr:mc

cc: Mr. Reino L. Viitala
R.R.#17
Site 25
Thunder Bay, Ontario
P7B 6C2



CLAIMS MAP.

1" = 40 CHAINS, SCADDING TWP. M.1092

Rens. L. Vintala, C-32251, June 1983.