



52C10NE2002 2.19601 BAD VERMILION
LAKE

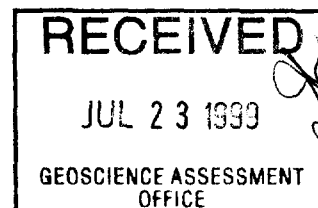
010

**REPORT ON GEOPHYSICAL SURVEYS
ON THE BLISS LAKE CLAIMS
BLISS LAKE & BAD VERMILION LAKE MAP AREAS
ONTARIO
for
STEPHANA RESOURCES LTD.**

July, 1999

Seymour M. Sears

2 . 1960 I



SUMMARY

Geological mapping was carried out over the southwest portion of a four claim (26 units) property in Bliss Lake and Bad Vermilion Lake Map Areas, northwestern Ontario. The Bliss Lake property hosts the Titan Titanium Prospect, now owned by Stephana Resources Ltd. The work was part of an ongoing evaluation of the property that commenced in 1997. Previous work has included linecutting and ground geophysical surveys (Mag & VLF-EM) and limited stripping. This report presents the geology from Line 300 East to Line 1900 East.

The work has delineated a layered Mafic to Ultramafic sequence consisting of a basal member made up of pyroxenite, norite and gabbro, a middle member made up of gabbro, magnetic gabbro and anorthositic gabbro, and an upper anorthosite.

Numerous layers within the middle member of this sequence consist of magnetite and titanium bearing gabbroic rocks. Previous work has indicated significant reserves of titanium. The next phase of the program should include completion of the geological mapping of the northeastern half of the property followed by drilling and metallurgical testing.

Respectfully submitted,



Seymour M. Sears, B.A., B.Sc.
Geologist

Wawa, Ontario
July, 1999



TABLE OF CONTENTS

	PAGE
SUMMARY	i
INTRODUCTION	1
PROPERTY LOCATION AND ACCESS	1
WORK HISTORY	1
REGIONAL GEOLOGY	4
PROPERTY GEOLOGY	4
CONCLUSIONS AND RECOMMENDATIONS	6
STATEMENT OF QUALIFICATIONS	7

TABLE OF FIGURES

Fig. 1. REGIONAL LOCATION MAP	2
Fig. 2. PROPERTY LOCATION MAP	3

LIST OF MAPS

Map 1A) Geology	Back Pocket
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INTRODUCTION

This report presents a summary of the results from a work program carried out in July, 1999 (grid cut in 1997) on the Bliss Lake Titanium Property of Stephana Resources Ltd. The work was carried out and supervised by personnel of Sears, Barry and Associates Ltd. of Wawa, Ontario. Accommodation during the mapping was completed from a cabin rented in the village of Mine Center.

The work program on the Bliss Lake Property consisted of Geological Mapping of approximately 19.2 kms of crosslines, base and tieline.

PROPERTY, LOCATION AND ACCESS

The Bliss Lake Titanium property is located 40 km east of Fort Francis, Ontario (Figure 1). It is situated along the boundary of Bliss Lake and Bad Vermillion Lake Map Areas (Fig 2). The group consists of twenty six (26) claim units in four (4) individual claims. The 1998 work program was completed mainly over claim K 1150285 in the southwest part of the property. The claims are numbered as follows:

Claim #	K 1150285 (9 units)
	K 1150286 (12 units)
	K 1150287 (3 units)
	K 1150288 (2 units)
	TOTAL (26 Units)

Access to the property is by means of a ten (10) kilometre gravel logging road that departs southward from Highway 11 at a point 28 kilometres east of the Junction of Highway 502. Boat access via Bad Vermillion Lake is more practical for the northern part of the property.

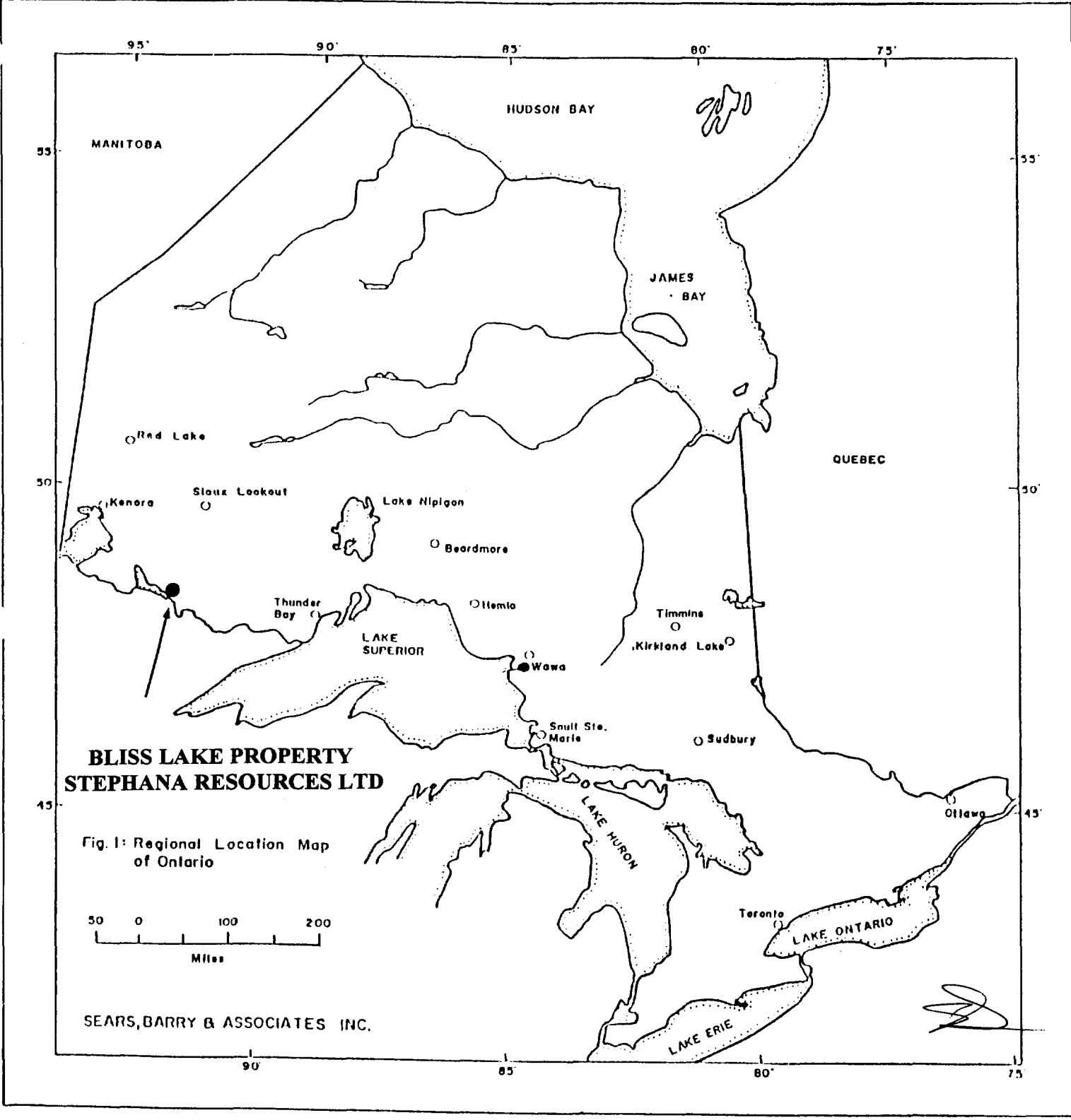
WORK HISTORY

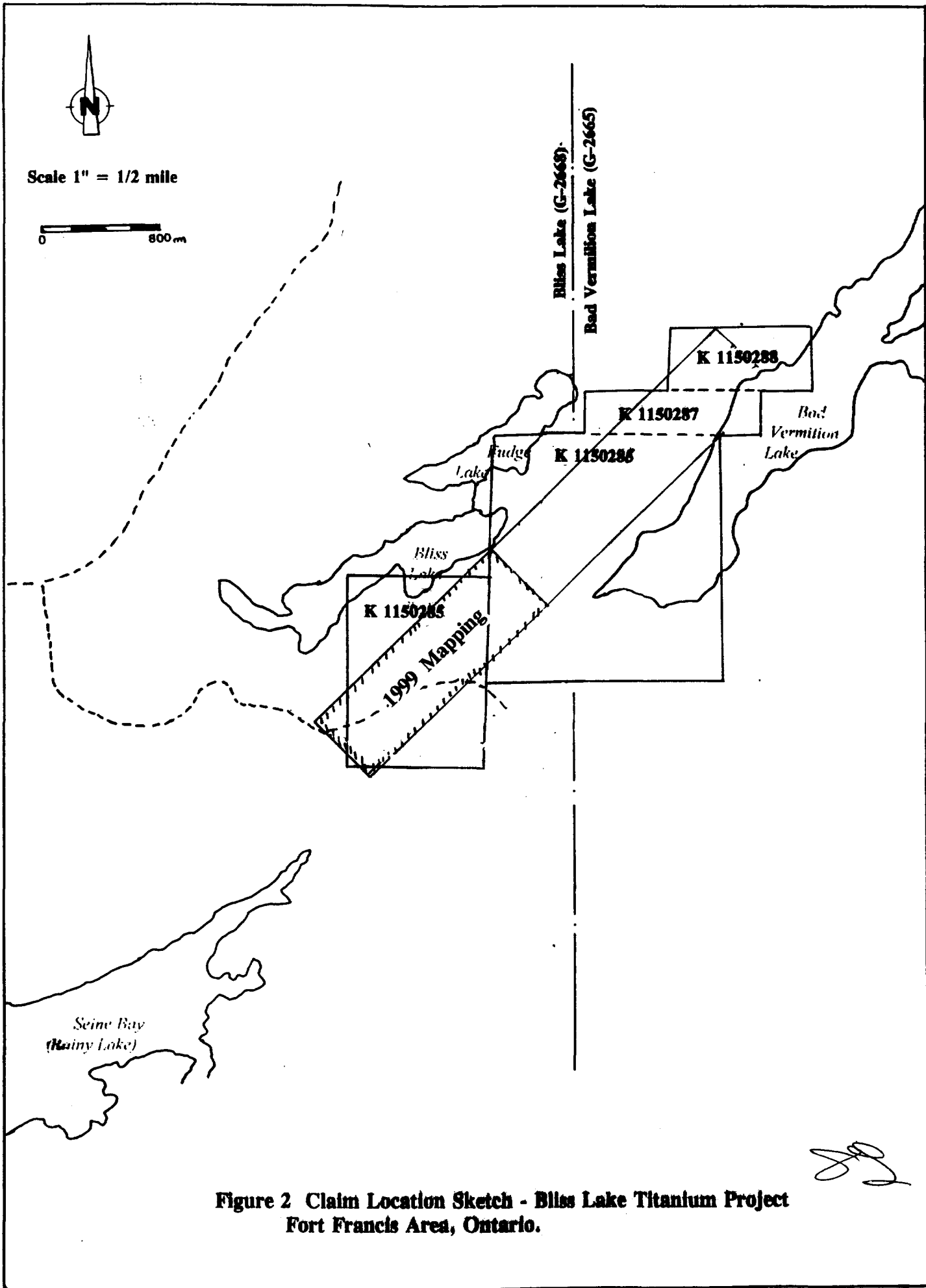
There has been numerous periods of exploration activity on the claims. These are summarized below:

(1917-1918) **Mines Branch, Canadian Department of Mines** - Conducted a magnetometer? survey and drilled six (6) holes.

(1943-1944) **Butler Brothers** - Various Prospecting, trenching and sampling programs.

(1956-1958) **Stratmat Limited** - Geology, Magnetometer surveys and Diamond Drilling (10 Holes).





**Figure 2 Claim Location Sketch - Bliss Lake Titanium Project
Fort Francis Area, Ontario.**

(1984-1985) **Titan Titanium International Inc.** - Completed magnetometer surveys, diamond drilling (24 holes), and reserve calculations; estimated a reserve of 1,530,000 tons of greater than 15% titanium oxide or 3,480,000 tons of 10% titanium oxide.

(1996) **Stephana Resources Ltd.** - Completed an orientation magnetometer survey and geological mapping on a small grid in the southwest part of the claim group and followed this up a modest stripping program.

(1997) **Stephana Resources Ltd.** - Completed Linecutting and geophysical surveys over the northeastern part of the property and extended the grid towards the southwest for later use.

(1998) **Stephana Resources Ltd.** - Completed Linecutting and geophysical surveys over the southwestern part of the property.

REGIONAL GEOLOGY

The Bliss Lake Area is underlain by Precambrian aged metavolcanic and intrusive rocks. The area of interest is located between two east-west trending faults, the Quetico Fault on the north and the Seine River fault on the south. The rocks of interest in this project consist of a large gabbro-anorthosite body centered on the west end of Bad Vermilion Lake (Wood et al, 1980, OGS Map P.2201). This northeast trending body intrudes into an extensive sequence of mafic and felsic volcanics.

Titanium, as titaniferous magnetite, ilmenite and rutile is hosted within magnetite bearing lenses within layers of the intrusive body.

PROPERTY GEOLOGY

The southwestern part of the Bliss Lake Property is underlain by part of a south facing layered ultramafic-mafic-anorthosite sequence. This sequence is steeply southeast dipping and has a general northeast-southwest trend. The footwall to the sequence is a massive looking quartz - feldspar porphyritic granitic rock. The contact between these two units was not observed and its relationship is unclear. The layered sequence consists of three general members. These include: 1) a basal member made up of pyroxenite, norite and gabbro; 2) a middle member made up of gabbro, magnetite bearing gabbro and anorthositic gabbro; and 3) an upper member consisting of anorthosite and minor gabbroic anorthosite.

Table of Lithologies

4 ULTRAMAFIC ROCKS: These rocks are dark green to black. It is primarily represented by pyroxenites. The Iherzolite and Harzburgite rocks are included in the legend because they have been recognized in thin sections carried out prior to the 1999 mapping. These were not recognized in field specimens. These rocks occur near the bottom of the layered sequence.

4) Undivided

4a) Pyroxenite: Dark green to black, 90 to 95 % pyroxene.

4b) Iherzolite: not recognized in hand specimen.

4c) Harzburgite: not recognized in hand specimen.

3 GABBROIC ROCKS: Consist of complete sequence ranging from 85 % pyroxene to 95 % feldspar. Includes magnetite bearing versions of all rock types; locally massive but typically has a thinly layered appearance within individual sequences. Overall layering is from a few centimetres to tens of metres.

3) Undivided

3a) Gabbro, medium to coarse grained: Dark green to black with white to cream feldspar, variably magnetic, typically chloritized, massive to thinly layered to strongly sheared.

3b) Gabbro, quartz bearing: similar to above with up to 3% quartz blebs and patches.

3c) Gabbro, 1 - 10% magnetite: medium to coarse grained, magnetite as evenly disseminated grains as well as coarse patches; unit occurs as narrow lenses as well as thick layered horizons tens of metres wide; up to 5% apatite in some layers and zones.

3d) Gabbro, > 10% magnetite: same as 3c except for magnetite content; occasionally exists as near massive (>95%) magnetite.

3e) Anorthositic Gabbro: Coarse grained, white weathering gabbro containing from 20 to 35% plagioclase feldspar.

3f) Norite: Dark grey to black with bronze patches, medium grained; occurs within the northern part of the sequence.

2 ANORTHOSITE: Occurs as massive thick layers in the southern part of the property as the upper unit in the layered sequence; also occurs as relatively thin layers within the lower part of the sequence near the underlying granitic rocks; essentially non magnetic.

2) Undivided

2a) Anorthosite: White to grey, mottled marbly colour, coarse grained, greater than 85% plagioclase feldspar.

2b) Gabbroic Anorthosite: Grey to white, coarse grained, 35 to 85% plagioclase feldspar.

1 GRANITIC ROCKS: Occurs as a massive unit occupying the northern part of the property and is presumably the footwall to the layered intrusive sequence; The unit is almost 100% represented by the quartz - feldspar porphyry unit.

1) Undivided

1a) Quartz - feldspar porphyry: Grey to bluish overall, densely packed medium grained rounded quartz, very fresh looking medium grained feldspar crystals; massive; quartz is grey adjacent to contact with overlying gabbro but very blue when greater than 25 metres distant.

1b) Feldspar porphyry: Coarse feldspar (up to 3 cm) sparsely distributed within a fine grained felsic matrix; grey to buff; occurs as relatively narrow dykes that cut across at low angles to the layering of the mafic sequence; relatively rare and not necessarily related to the footwall granitic body.

1c) Felsite: Fine grained grey to buff felsic rock occurring as narrow dykes or sills within the mafic sequence; relatively rare.

The geological data observed is plotted on the map accompanying this report at a scale of 1:1250, the same scale as previously submitted ground geophysical data (Sears, 1997 & 1998). Lines 1750 and 1950 were not completed due to time restraints. A number of rock samples were collected but not yet assayed.

CONCLUSIONS AND RECOMMENDATIONS

The southwest part of the Champion Bear Resources Ltd.'s Bliss Lake Titanium property is underlain by a northeast trending layered ultramafic-mafic-anorthosite intrusion. The intrusion is made up of three general members - a basal member made up of pyroxenite, norite and gabbro, a middle member made up of gabbro, magnetic gabbro and anorthositic gabbro, and an upper anorthosite. Within the middle member there occurs numerous magnetite bearing lenses and layers. These layers are typically titanium bearing. Detailed exploration of these titaniferous layers should be completed. This will involve extensive sampling and stripping. Once completed, large composite samples of several of the lenses should be collected and metallurgical work relating to titanium extraction carried out. This work can then be followed up by diamond drilling.

Wawa, Ontario
July, 1999

Respectfully Submitted,



Seymour M. Sears, B.A., B.Sc.
Geologist



Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Jan 88(2) and 88(3), R.A.O. 1988

Transaction Number (office use)
W9910.00143
Assessment Plan Research Imaging



52CLONE2002 2.19601 BAD VERMILION 900

LAKE

- Please type or print in ink.

sections 88(2) and 88(3) of the Mining Act. Under section 8 of the Mining Act, this work and correspond with the mining land holder. Questions about this section art and Mines, 3rd Floor, 883 Ramsey Lake Road, Sudbury, Ontario, P3E 8B5.

1. Recorded holder(s) (Attach a list if necessary)

Name <i>Stephans Resources Ltd</i>	Chart Number <i>301591</i>
Address <i>2005 - 9th St. S.W. Calgary, Alberta T2T 3C4</i>	Telephone Number <i>(403) 229-9518 / (705) 856-2018</i>
	Fax Number <i>same / (705) 856-1147</i>
Name	Chart Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) Physical: drilling stripping, trenching and associated assays Rehabilitation

Work Type: *Geology*

Office Use	Commodity
Total \$ Value of Work Claimed	<i>3600</i>
NTS Reference	
Date Work Performed From <i>13 07 99</i> To <i>18 07 99</i>	
Global Positioning System Data (if available)	Township/Range <i>Bliss Lake / Bad Vermilion</i>
	M or Q-Plan Number <i>G 2668 / G 2665</i>
	Mining Division <i>Kenna</i>
	Resident Geologist District <i>Kenna</i>

Please remember to:

- obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name <i>Seymour M. Sears</i>	Telephone Number <i>(705) 856-2018</i>
Address <i>Box 2058 Wawa Ontario P0S1K0</i>	Fax Number <i>(705) 856-1147</i>
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

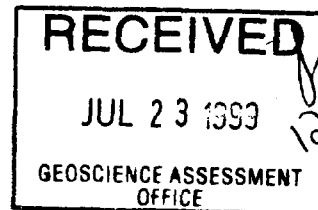
4. Certification by Recorded Holder or Agent

I, *Seymour M. Sears* (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent <i>[Signature]</i> (Letter on file)	Date <i>July 22/99</i>
Agent's Address <i>Box 2058 Wawa Ont P0S1K0</i>	Telephone Number <i>(705) 856-2018</i>
	Fax Number <i>(705) 856-1147</i>

0241 (02/97)

Deemed 2.19601
October 21, 1999



8. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9910.00143

Mining Claim Number, Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank Value of work to be distributed at a future date
eg TB 7827	18 ha	\$28,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,882	\$ 4,000	0	\$4,882
1 K 1150265	9	2808	3600	0	0
2 K 1150286	12	792	0	0	0
3 K 1150287	12				
4 K 1150288	12				
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals	21	3600	3600	792	

I, Seymour M. Sears (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 8/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorder, Holder or Agent Authorized in Writing: [Signature] Date: July 22/99.

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

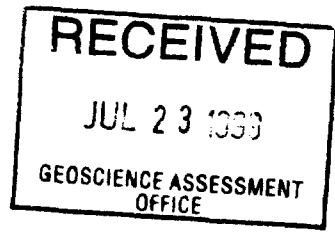
- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		

0241 (02/97)



[Handwritten scribbles]

END

Personal information collected on this form is obtained under the authority of subsection 2(1) of the Assessment Work Regulation 696. Under section 9 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P2E 6B6.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Geology (Incl. drafting + Report)	12 Man Days @	\$ 225	\$ 2700 ⁰⁰
Associated Costs (e.g. supplies, mobilization and demobilization).			
Wawa - Mini-Cants (Return by Vehicle)			
	1500 Km @	30¢	450. ⁰⁰
Transportation Costs			
Vehicle on site (Mini-Cants - Pupet) 200k @			
		30¢	60. ⁰⁰
Food and Lodging Costs			
Accom (Bliss Lake Cabin) 6 Days @ \$35			
			210. ⁰⁰
Food 12 Mondays @ \$15			
			180. ⁰⁰
Total Value of Assessment Work			\$ 3600⁰⁰

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

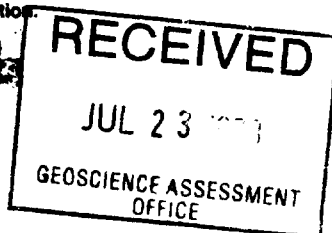
Notes:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, Seymour M. Sears, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as Agent (letter file) I am authorized to make this certification.

2.1960



Signature: [Signature] Date: July 22/99

0012 (MNS)

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (877) 670-1555

August 11, 1999

STEPHANA RESOURCES LTD.
PRESIDENT: RICHARD KANTOR
2005 - 9 ST S.W.
CALGARY, AB
T2T-3C4

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpgc.htm

Dear Sir or Madam:

Submission Number: 2.19601

Status

Subject: Transaction Number(s): W9910.00143 Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in **DUPLICATE** to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.19601

Date Correspondence Sent: August 11, 1999

Assessor: Bruce Gates

General Comment:

On all future submissions please ensure that the geology map contains the claim boundary lines and claim numbers or a grid location map shows the grid lines in relation to claim fabric.

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9910.00143	1150285	BLISS LAKE, BAD VERMILION LAKE	Approval	August 10, 1999

Section:

12 Geological GEOL

Correspondence to:

Resident Geologist
Kenora, ON

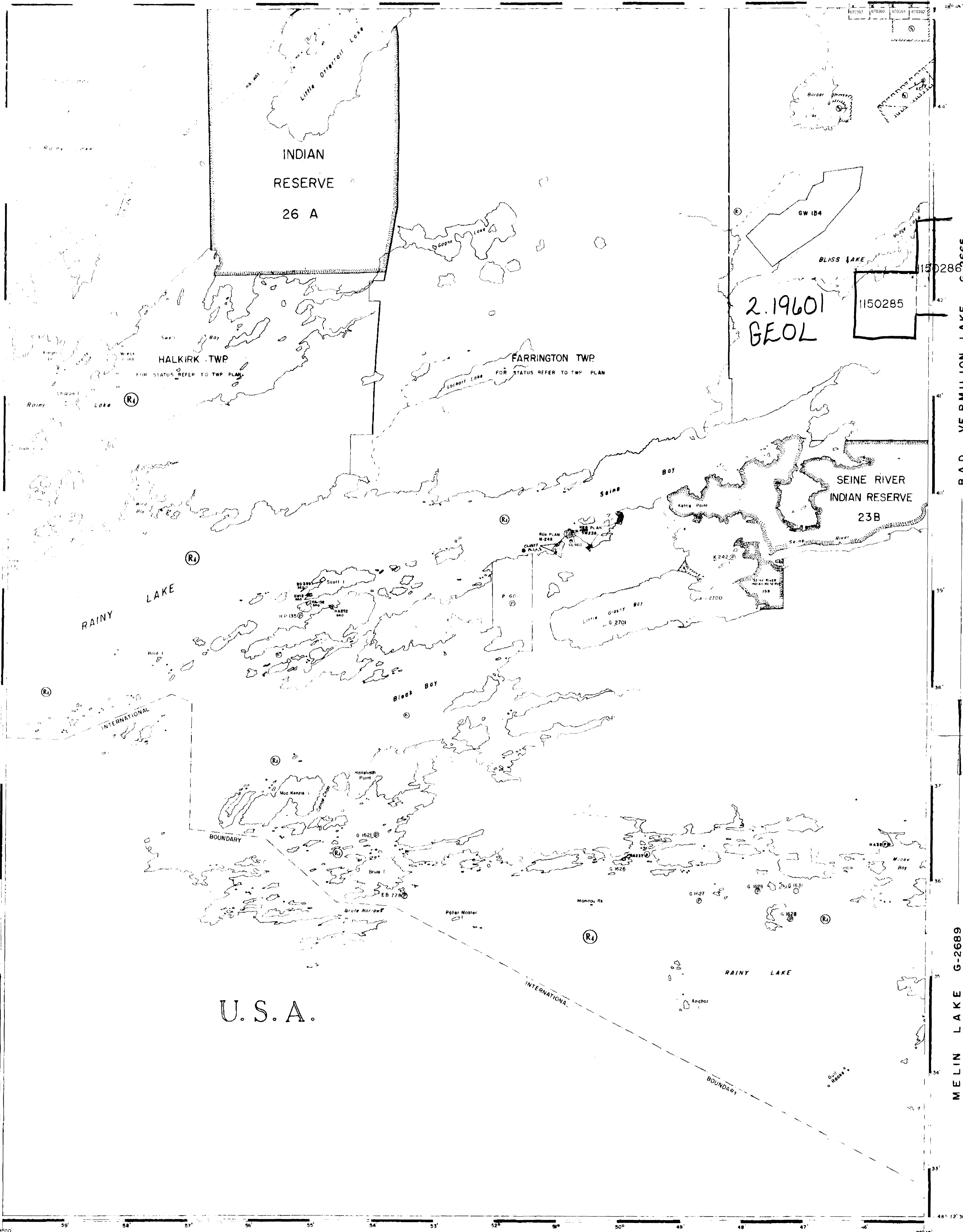
Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Seymour Sears
WAWA, ON

STEPHANA RESOURCES LTD.
CALGARY, AB

PORTER INLET AREA G-2693



FLOODING DATA REFERRED UP TO 15' ABOVE MEAN SEA LEVEL, ON ALL LANDS BORDERING ON RAINY LAKE. FILE 1459, 1476.

LEGEND

- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KINDS - HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKIEG
- MINES

REFERENCES

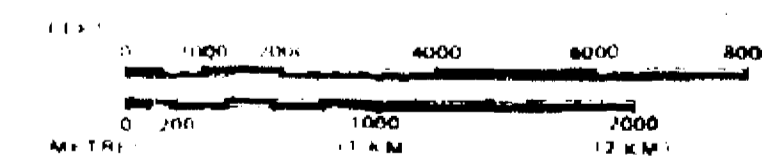
AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. MINING RIGHTS ONLY
- S.R.O. SURFACE RIGHTS ONLY
- M.S.E. MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	Fee
① CROWN RESERVE	1471743	1883	43432	143472
② SEC 35 W. 11 C. 2344-99 ONT. 1885-99 M & S				
③ SEC 35 W. 11 C. 2344-99 ONT. 1885-99 M & S (ALL ISLANDS WITHIN RAINY LAKE ARE PART OF C. 2344) SAND & GRAVEL				
④ M.S.E. PERMIT			FILE 145472	
⑤ A.T.C. 117 1674				
⑥ QUARRY PERMIT				

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

SCALE 1 INCH = 40 CHAINS



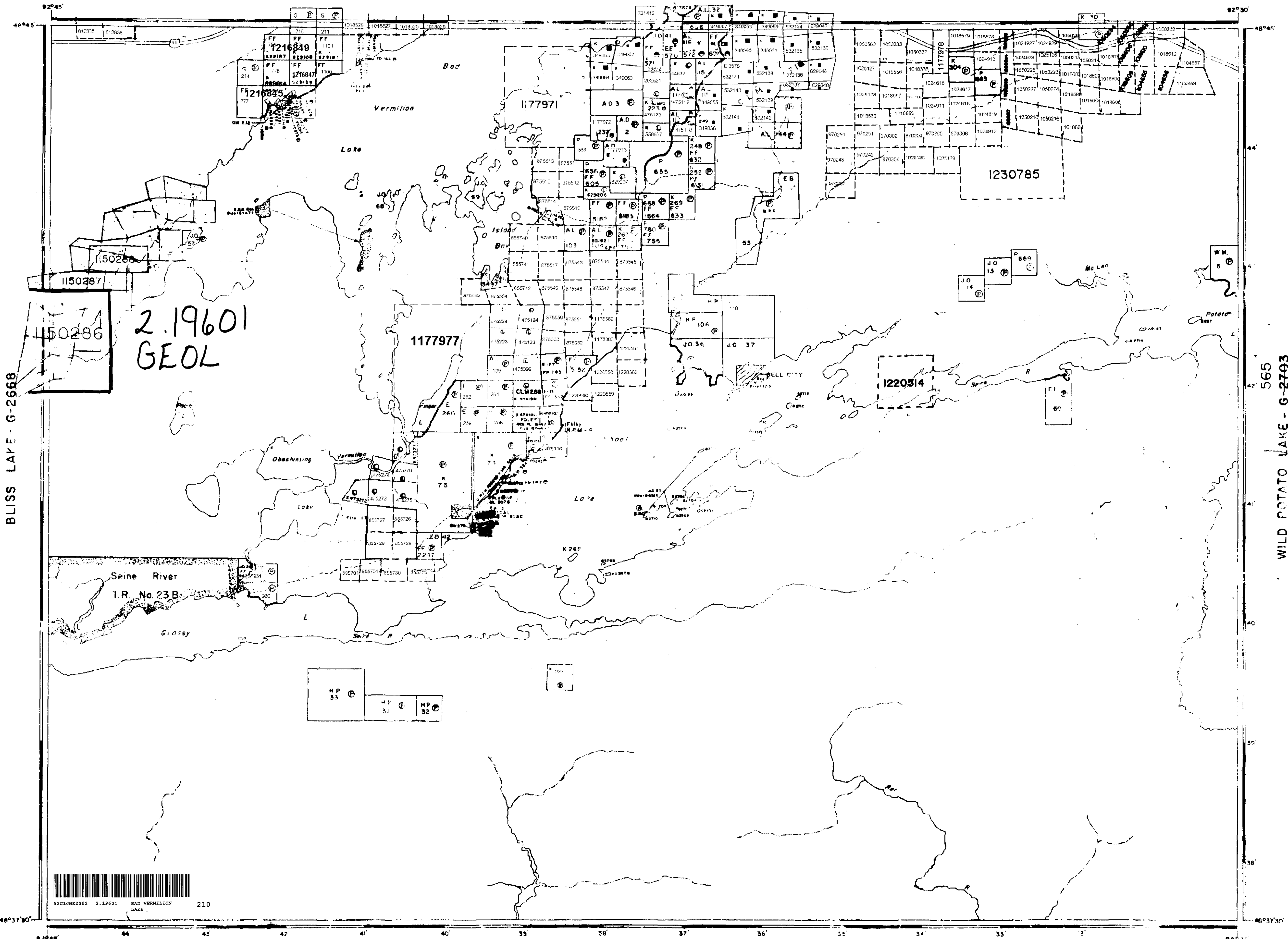
AREA BLISS LAKE (RAINY LAKE)

M.N.R. ADMINISTRATIVE DISTRICT
FORT FRANCES
 MINING DIVISION
KENORA
 LAND TITLES / REGISTRY DIVISION
RAINY RIVER



Date MARCH, 1984
 Number M-2467
G-2668

LITTLE TURTLE LAKE - G-2682



BLISS LAKE - G-2668

WILD POTATO LAKE - G-2793

MELIN LAKE - G-2689

LEGEND

- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- RAILWAYS
- POWER LINES
- MARSH OR MUCKS
- MINES
- CANCELLED
- PATENTED S.P.

REFERENCES

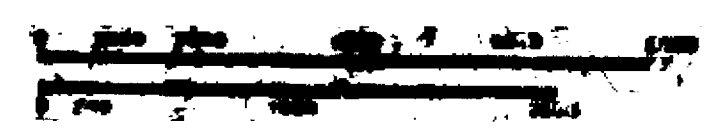
AREAS WITHDRAWN FROM DISPOSITION

M.R.O. - MINING RIGHTS ONLY
 S.R.O. - SURFACE RIGHTS ONLY
 M+S - MINING AND SURFACE RIGHTS

DESCRIPTION	ORDER NO.	DATE	DISPOSITION	FILE
M.R.O. FORFEITED JAN 1/84 RE-OPENED JUNE 1/84				

LANDS OPEN TO STAKING, PROSPECTING ETC.
 JUNE 3, 1994
 0-3-94

SCALE : 1 INCH = 40 CHAINS



BAD VERMILLION LAKE
 M.N.R ADMINISTRATIVE DISTRICT
 FORT FRANCES

MINING DIVISION
 KENORA

LAND TITLES / REGISTRY DIVISION
 RAINY RIVER

MINISTRY OF NATURAL RESOURCES
 MINISTRY OF NORTHERN DEVELOPMENT AND MINES



2.19601

STEPHANA RESOURCES LTD

BLISS LAKE PROPERTY
(Kenora Mining Division)

Geological Map

SYMBOLS

(Cum Prod. indicated assumed)
Swamp

LEGEND

4 ULTRAMAFIC ROCKS

- 4) Undivided
- 4a) Pyroxenite
- 4b) Ilmenite
- 4c) Harzburgite

3 GABBROIC ROCKS

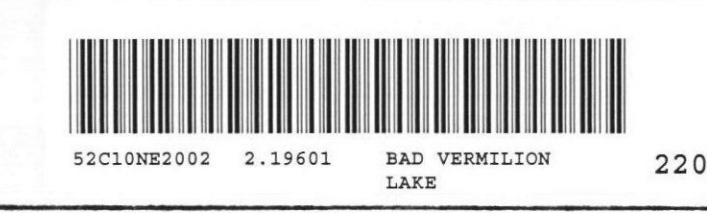
- 3) Undivided
- 3a) Gabbro, medium to coarse grained
- 3b) Gabbro, quartz bearing
- 3c) Gabbro, 1-10% magnetite
- 3d) Gabbro, > 10% magnetite
- 3e) Anorthositic Gabbro
- 3f) Norite

2 ANORTHOSITE

- 2) Undivided
- 2a) Anorthosite
- 2b) Gabbroic Anorthosite

1 GRANITIC ROCKS

- 1) Undivided
- 1a) Quartz-Feldspar Porphyry
- 1b) Feldspar Porphyry
- 1c) Felsite



RECEIVED
JUL 23 1993
GEOLOGICAL ASSESSMENT
OFFICE