



31F06NE9548 2.14611 SEBASTOPOL

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**Geological Report  
on  
The Harper Prospect,  
Turner's Island/Island 'D',  
Sebastopol Township, Refrew County**

**2.14611**

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JUN 12 1992

MINING LANDS BRANCH

*S. Harper*

S. Harper  
R. R. # 1  
Ennismore, Ontario  
K0L 1T0  
(705) 292-7732

*2.12665  
Qual.*



31F06NE9548 2.14611 SEBASTOPOL

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**The Harper Prospect, Turner's Island/Island 'D', Sebastopol  
Township, Renfrew County**

**Holder of Mining Claim and Author of This Report:**

S. Harper  
R. R. #1  
Ennismore, Ontario  
K0L 1T0  
(705) 292-7732  
Ontario Prospector's Licence Number A49544

The author has written other reports that were approved for assessment credit.

**Mining Claim Numbers:**

S0 1134389  
S0 1134390

**Location and Access**

Claim Map: Ontario M148 Sebastopol Township  
Latitude 45°26'46" Longitude 76°10'40"

The two mining claims include the whole of Turner's Island, within Lake Clear. Lake Clear is located 11 miles by road from the town of Eganville. Turner's Island is located 3 miles from the north shore of the lake. Access is by boat or canoe, or over the ice in winter. Boat rental is available at several localities on the mainland.

**Background**

A reconnaissance geological survey was performed by the author with the assistance of D. Gratton (P. Eng., Chem), Toronto. Geologic mapping was performed between May 16 to May 18, 1992.

Traverse lines were established at 100 m intervals at a bearing of 125° along a base line bearing 35.5°. The base line commenced near the northwestern part of the island (see map). Additional traverse lines were established at 25 m intervals in the northwestern part of the island in the area of old workings which

expose several calcite veins. Traverse lines were established by compass and hip chain. Stations were flagged along the 100 m traverse lines at 30 m spacings. Stations were flagged along the 25 m traverse lines at 15 m spacings.

### **Past Exploration and Development Work**

Apatite was mined between 1879 and 1882. Two hundred tons of apatite were produced during this period (Spence, 1920). Production was from open cuts, trenches and pits into calcite veins. Documented workings occur at the northwest end of the island.

One trench was re-opened in 1943 during investigations for rare earth elements (Satterly, 1945).

During 1977, the National Museum of Canada collected mineral specimens (Grice and Gault, 1982).

A small amount of mineral collecting has occurred on the island. This has resulted in a few newer small trenches and pits. Most mineral collecting has been in the vicinity of the old workings.

No Ontario Geological Survey assessment files exist for Turner's Island.

### **Previous Geological Investigations**

Spence (1920) documents past apatite production and briefly describes the mineralogy of the calcite veins.

Satterly (1945) describes the geology of the main workings located near the northwest end of the island.

Hewitt (1967) documents past apatite production.

Themistocleous (1977, 1978, 1981) mapped the geology of the area for the Ontario Geological Survey.

Storey and Vos (1981) describe the geology in the area of the old workings near the northwest end of the island. They also report chemical analyses of calcite vein material. A sketch map of the main workings is included in their report.

Grice and Gault (1982) briefly describe the mineralogy of the calcite veins in conjunction with the mineralogy in the Lake Clear - Kuehl Lake Area. Their work is based on mineral collecting in the area for the National Museum of Canada during 1977.

Lumbers (1982) presents a regional geological reconnaissance of the Renfrew County Area.

### **Regional Geology**

Turner's Island lies within the Central Metasedimentary Belt of the Grenville Structural Province. Themistocleous (1977) reports mineral assemblages of the Clontarf area, which includes Turner's Island, are indicative of upper almandine-amphibolite facies temperature and pressure metamorphic conditions.

### Property Geology

Turner's Island is generally covered by thin overburden and well developed humus. Outcrop exposure is good, especially along the northwest shore. In this area, cliffs along the shore provide excellent exposure.

Topography varies from steep cliffs, up to approximately 20 m in height along the northwest shore, to swamps along the southeast shore.

The island is covered by abundant cedar and spruce with lesser birch, poplar and pine. Many areas are covered by small, densely intergrown trees. Brush, believed to be a type of alder, is quite dense in the interior of the island. Locally, junipers are abundant.

The only wildlife observed during geologic mapping was two brown colored snakes. These are probably common water-snakes.

Biotite-quartz-potassic feldspar gneiss is abundant in outcrop. The gneiss contains abundant biotite. The gneiss is well foliated. In one area, the gneiss was well lineated, with biotite defining the lineation.

Amphibole-quartz-plagioclase gneiss is common in an area of abundant small calcite veins in the northwest part of the island. In several hand samples, quartz was a minor constituent or absent.

Gneissic, leucocratic quartz monzonite is abundant in outcrop. It is abundant in the cliffs on the northwest shore of the island. The quartz monzonite commonly contains xenoliths of biotite-quartz-potassic feldspar gneiss and amphibole-quartz-plagioclase gneiss.

Rare, narrow granite and syenite dikes were observed in the northern part of the island. They were observed in the vicinity of calcite veins that were recently worked. It is believed that they are not related to the calcite veins. The disclosure of these dikes is believed to be related to the better exposure due to recent work.

Calcite veins range in width from 30 cm to 4 metres. Calcite veins consist of white to salmon pink colored calcite. The calcite is host to euhedral apatite  $\pm$  biotite  $\pm$  feldspar  $\pm$  hornblende  $\pm$  pyroxene  $\pm$  titanite. Zircon is reported (Foote?, 1882; Grice and Gault, 1982). Minerals found within the calcite veins are often of enormous size. Minerals should be examined for subparallel lineation alignment.

The calcite veins are generally subparallel; striking northeast and steeply dipping. One vein was observed striking northwest. The calcite veins are not restricted to a particular lithologic unit.

Calcite veins are exposed in two areas. The first is near the northwest shore in the northern part of the island. Apatite was mined from several open cuts, trenches and pits in the 1880s in this area. The National Museum of Canada worked several calcite veins in this area during 1977. Evidence of minor mineral collecting can be observed in this area. The largest trench exposes a calcite vein approximately 4 metres wide over a strike length of 32 m.

The author discovered undocumented old workings in the vicinity of 4-40W. A series of old trenches and pits expose subparallel calcite veins over a distance of approximately 100 m. Judging by the vegetation growing in the workings, the work is believed to have been performed during mining activities during the 1880s. No evidence of recent work (ie mineral collecting) was seen by the author.

### **Recommendations**

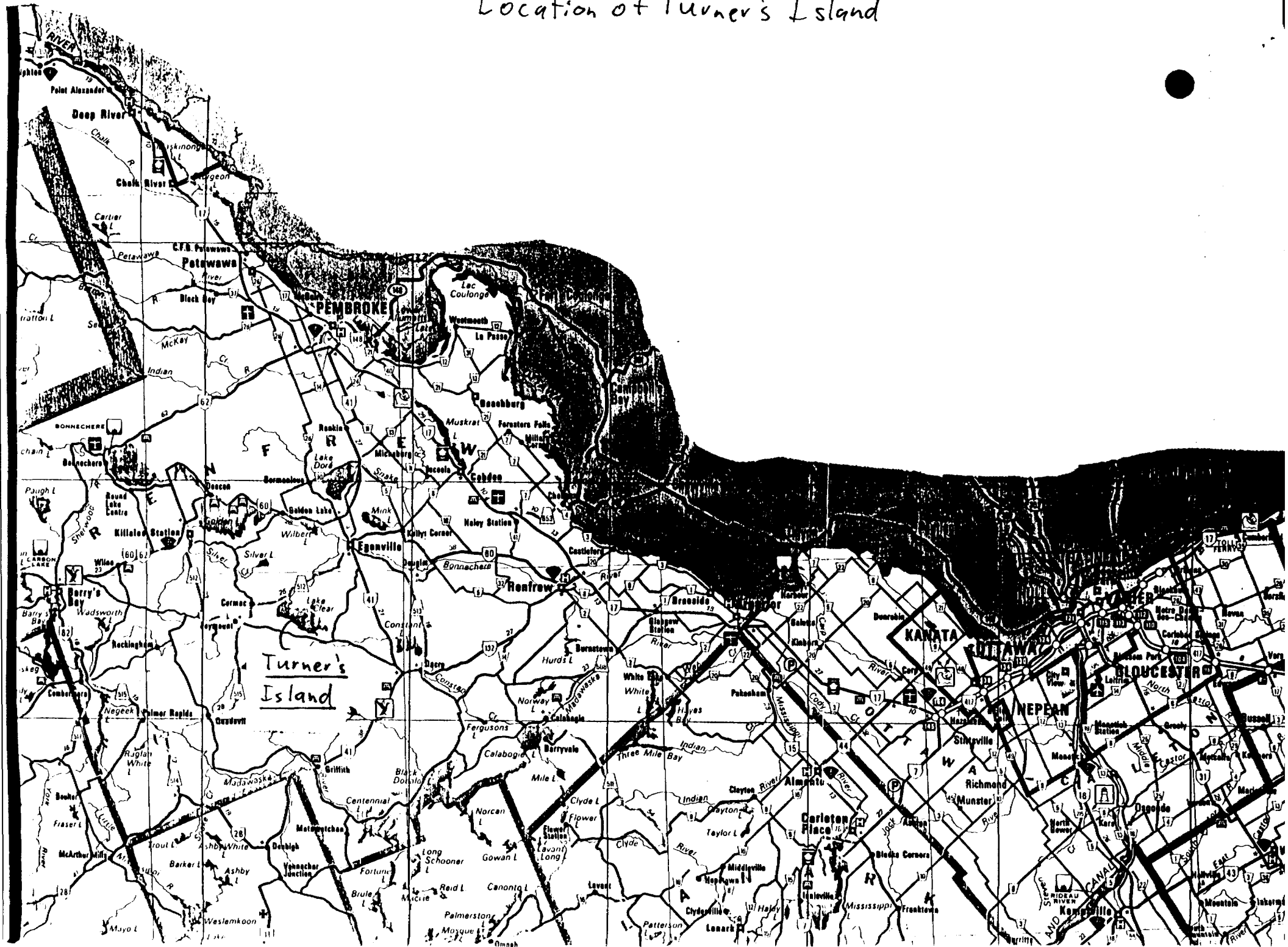
Storey and Vos (1981) indicate that the calcite veins have not been worked out. This was verified during mapping. As well, the lateral and vertical continuity of known calcite veins needs to be examined further. The possibility of undiscovered calcite veins is enormous. Hence, there is great potential for mineral specimen production. Small scale, selective 'mining' for mineral specimens may be feasible. As well, the minerals are hosted in pink to white calcite which may have use as an industrial mineral. These possibilities need further investigation.

The lateral and vertical continuity of known calcite veins needs to be examined in detail. This will require overburden stripping and high pressure washing. This will also provide fresh bedrock exposure for examination in areas of old workings. A radiometric survey may be useful in delineating calcite veins in areas of thin overburden. Due to the narrow widths of calcite veins, detailed, in-fill mapping might be useful.

### **Acknowledgements**

The author is indebted to the professional assistance, support, helpful suggestions and limitless friendship of D. Gratton (P. Eng, Chem) during geological mapping.

# Location of Turner's Island



● **Table of Rock Unit Lithologies**

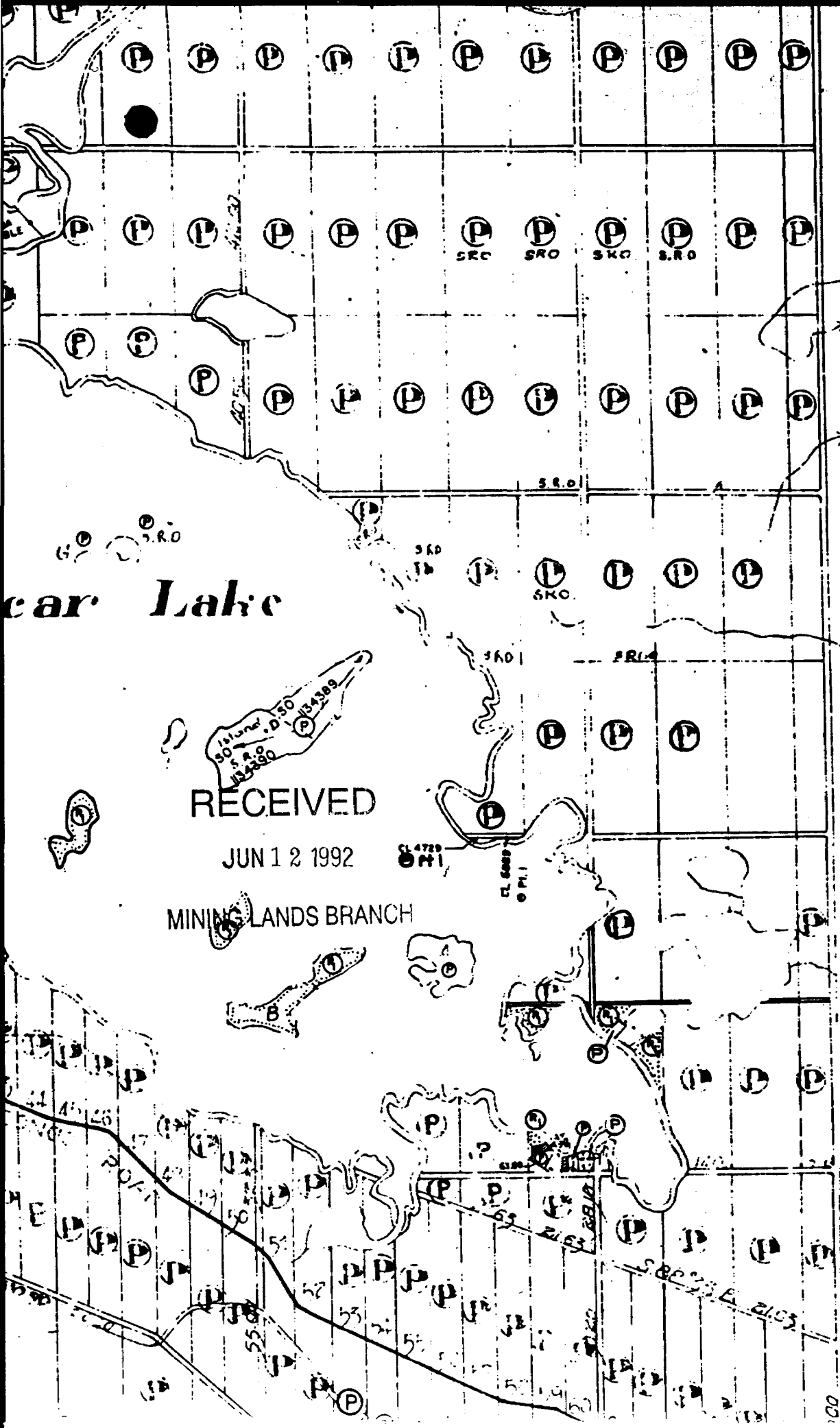
(From accompanying geologic map)

- 1a Biotite-Quartz-Potassic Feldspar Gneiss
- 2a Amphibole-Quartz-Plagioclase Gneiss
- 3a Gneissic, leucocratic Quartz Monzonite (locally contains up to 10% of 1a and 2a)
- 4a Granite Pegmatite Dike
- 4b Syenite Pegmatite Dike
- 5a Calcite Vein (commonly contains euhedral crystals of apatite ± biotite ± feldspar ± hornblende ± pyroxene ± scapolite ± titanite)



## References

- Foote, A. E. ? (1882) A New Locality for Sphene. Proceedings of the Academy of Natural Sciences of Philadelphia, p. 49.
- Grice, J. D. and R. A. Gault (1982) The Lake Clear-Kuehl Lake Area, Renfrew County, Ontario. Mineralogical Record, July-August, p. 209-213.
- Hewitt, D. F. (1967) Phosphate in Ontario. Ontario Department of Mines, Mineral Resources Circular No. 6, p. 59-60.
- Lumbers, S (1982) Summary of Metallogeny, Renfrew County Area. Ontario Geological Survey, Report 212, 58 p. Accompanied by Maps 2459, 2460, 2461, 2462, scale 1:100 000, and chart.
- Satterly, J (1945) Mineral Occurrences in the Renfrew Area. Ontario Department of Mines, Volume LIII, Part III, 1944.
- Spence, H. S. (1920) Phosphate in Canada. Canada Department of Mines, Mines Branch No. 396, 156 p.
- Storey, C. C. and M. A. Vos (1981) Industrial Minerals of the Pembroke - Renfrew Area, Part 2. Ontario Geological Survey, Mineral Deposits Circular 22, p. 14-17.
- Themistocleous, S. G. (1977) Clontarf Area, Renfrew County. In, Summary of Field Work, 1977, Ontario Geological Survey Miscellaneous Paper 75, p. 122-125.
- Themistocleous, S. G. (1978) Clontarf Area, Renfrew County, Southern Ontario, Ontario Geological Survey, Prelim. Map P. 1560, Geol. Ser., scale 1:15,840 Geology 1977.
- Themistocleous, S. G. (1981) Geology of the Clontarf Area, Renfrew County. Ontario Geological Survey, Report 209, 64 p. Accompanied by Map 2433.



Near Lake

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JUN 12 1992

MINING LANDS BRANCH

Location Map

The Harper Prospect,  
Turner's Island/  
Island 'D'  
(Claim Map M148)

GRANTIAN



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900

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Geoscience Approvals Section  
Mining Lands Branch  
159 Cedar Street, 4th Floor  
Sudbury, Ontario  
P3E 6A5

August 24, 1992

Telephone: (705) 670-7251  
Fax: (705) 670-7262

Our File: 2.14611  
Transaction #: W9290.00032

Mining Recorder  
Ministry of Northern Development  
and Mines  
MacDonald Block  
Room M2-17  
900 Bay Street  
Toronto, Ontario  
M7A 1C3

Dear Madam:

RE: Approval of Assessment Work on mining claim SO 1134389 in  
Sebastopol Township.

The Assessment Credits for Geology, section 12 of the Mining Act  
Regulations, as listed on the original Report of Work, have been  
approved as of AUGUST 21, 1992.

Section 11(3)(c) of the Mining Act regulations require that a graphic  
or bar scale be present on all submitted maps. This was not the case  
for your submission. I was, on this occasion, able to add them for you  
but in the future, time constraints and/or work load may force the  
return of deficient maps for revision.

Please indicate this approval on the claim record sheets.

If you have any questions please call Clive Stephenson at  
(705) 670-7251.

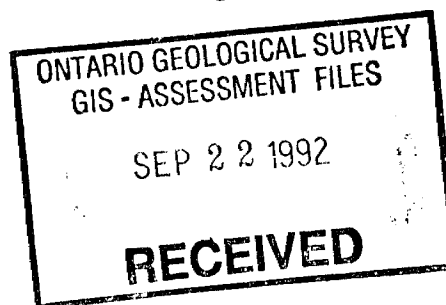
Yours sincerely,

Ron C. Gashinski  
Senior Manager, Mining Lands Branch  
Mines and Minerals Division

CDS/jl

Enclosures:

cc: Assessment Files Office  
Toronto, Ontario



Resident Geologist  
Tweed, Ontario



**Report of Work Conducted  
After Recording Claim**  
Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.14611

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) <i>Scott E. Harper</i>	Client No. <i>141978</i>
Address <i>#3-118 Bedford Road, Toronto, ON M5R 2K2</i>	Telephone No. <i>(416) 961-5041</i>
Mining Division <i>Southern Ontario</i>	Township/Area <i>Sebastopol</i>
	M or G Plan No. <i>M148</i>
Date Work Performed From: <i>May 16, 1992</i>	To: <i>May 22, 1992</i>

**Work Performed (Check One Work Group Only)**

Work Group	Type	<b>RECEIVED</b>
<input checked="" type="checkbox"/> Geotechnical Survey	<i>Geological Survey</i>	<i>JUN 12 1992</i>
<input type="checkbox"/> Physical Work, Including Drilling		
<input type="checkbox"/> Rehabilitation		<b>MINING LANDS BRANCH</b>
<input type="checkbox"/> Other Authorized Work		
<input type="checkbox"/> Assays		
<input type="checkbox"/> Assignment from Reserve		

Total Assessment Work Claimed on the Attached Statement of Costs \$ *1216*

**Note:** The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

**Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)**

Name	Address
<i>Scott Harper (author)</i>	<i>#3-118 Bedford Road Toronto ON</i>
<i>D. Gratton, P. Eng</i>	<i>369 Sammon Ave Toronto ON</i>

(attach a schedule if necessary)

**Certification of Beneficial Interest \* See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <i>May 26, 1992</i>	Recorded Holder or Agent (Signature) <i>S. Harper</i>
--	-----------------------------	--

**Certification of Work Report**

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying <i>Scott Harper #3-118 Bedford Road Toronto ON M5R 2K2</i>		
Telephone No. <i>(416) 961-5041</i>	Date <i>May 26, 1992</i>	Certified By (Signature) <i>Scott E Harper</i>

**For Office Use Only**

Total Value Cr. Recorded  <i>\$1,216</i>	Date Recorded <i>May 27/92</i>	Mining Recorder <i>[Signature]</i>	<table border="1"> <tr> <td colspan="2">SOUTHERN ONTARIO MINING DIVISION</td> </tr> <tr> <td colspan="2"><b>RECEIVED</b></td> </tr> <tr> <td colspan="2">MAY 27 1992</td> </tr> <tr> <td>AM</td> <td>PM</td> </tr> <tr> <td>7,8,9,10,11,12,1,2,3,4,5,6</td> <td></td> </tr> </table>	SOUTHERN ONTARIO MINING DIVISION		<b>RECEIVED</b>		MAY 27 1992		AM	PM	7,8,9,10,11,12,1,2,3,4,5,6	
	SOUTHERN ONTARIO MINING DIVISION												
	<b>RECEIVED</b>												
MAY 27 1992													
AM	PM												
7,8,9,10,11,12,1,2,3,4,5,6													
Deemed Approval Date <i>Aug 25/92</i>	Date Approved												
Date Notice for Amendments Sent													



Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction  
W9290.00032

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	1050	
	Field Supervision Supervision sur le terrain		1050
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type		
Supplies Used Fournitures utilisées	Type		
	Map Reproduction	6	
<b>RECEIVED</b>			6
Equipment Rental Location de matériel	Type		
	JUN 12 1992		
<b>MINING LANDS BRANCH</b>			
Total Direct Costs Total des coûts directs			1056

2. Indirect Costs/Coûts indirects

\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work.  
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
	Gas (Car Travel)	25	
	Boat Rental	15	
			40
Food and Lodging Nourriture et hébergement	Food	120	120
Mobilization and Demobilization Mobilisation et démobilitation			
Sub Total of Indirect Costs Total partiel des coûts indirects			160
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)		Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)	1216

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	× 0.50 =

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	× 0,50 =

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Recorded Holder I am authorized (Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature <u>Scott Harper</u>	Date May 26, 1992
----------------------------------	----------------------

SEBASTOPOL  
Twp.

BELL CANADA  
SUBM. CABLE

MINING LANDS BRANCH

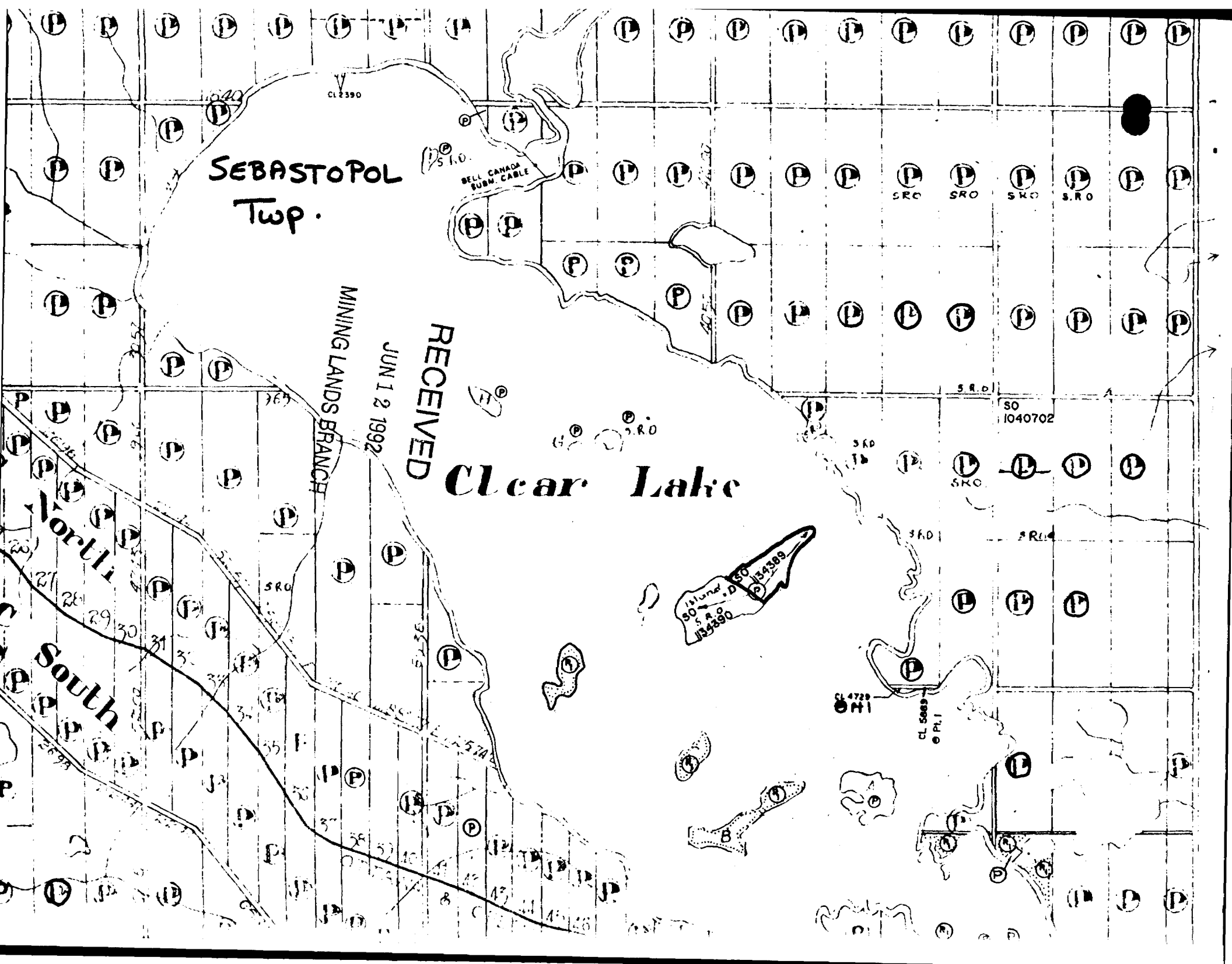
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Clear Lake

North

South



# SEBASTOPOL

LEGEND

- CANCELLED
- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY

- C
- ⊙
- C.S.
- ⊙
- LOC.
- L.O.
- M.R.O.
- S.R.O.

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O.70)

Order no.	File	Date	Disposition
W 3 / 78	108534	JAN 11 '78	S.R.O.

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.

DATE OF ISSUE

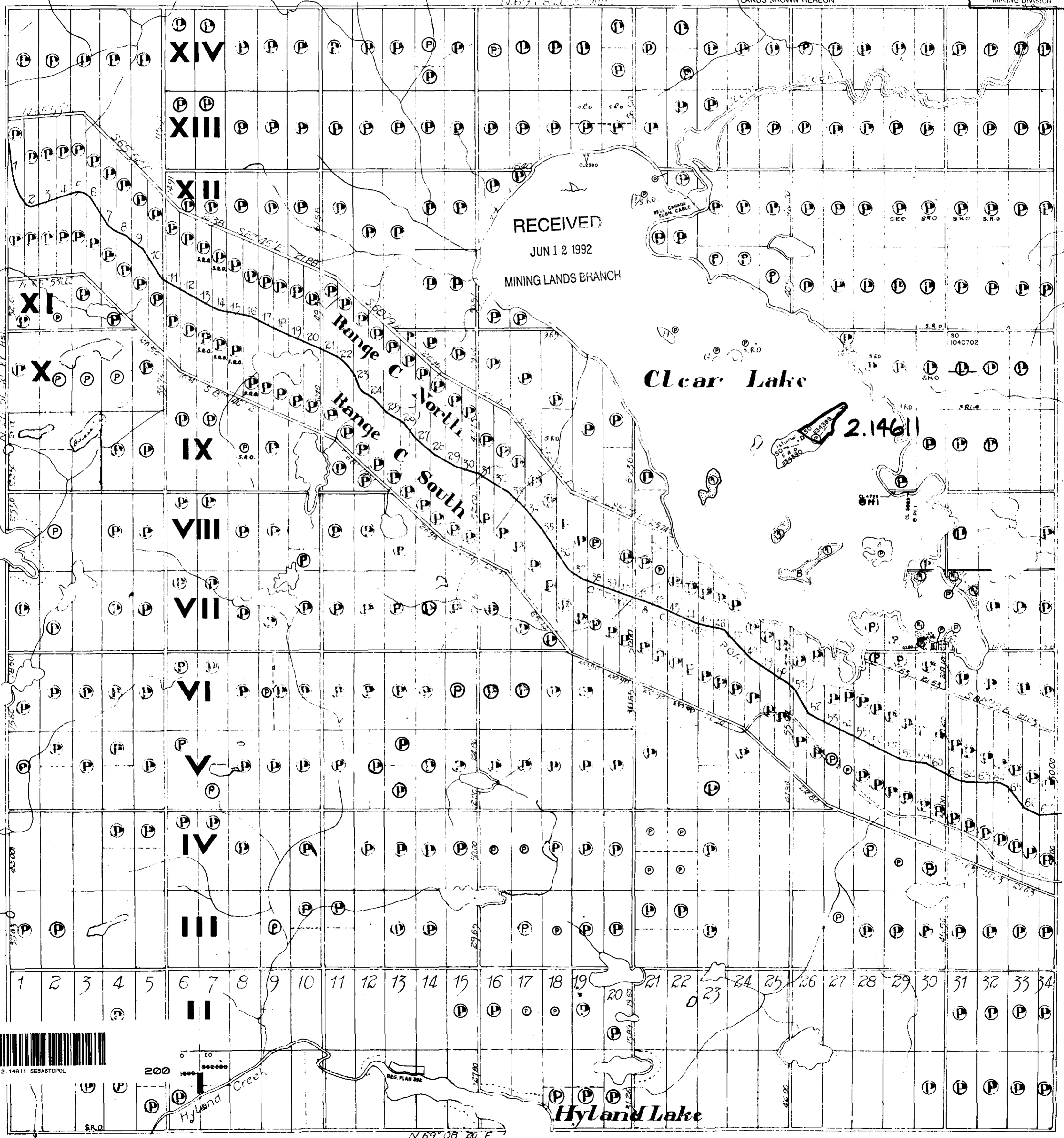
JUN - 9 1992

SOUTHERN ONTARIO  
 MINING DIVISION

SOUTHERN ONTARIO

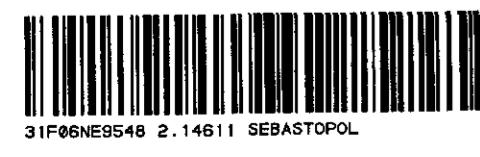
Scale — 40 Chains = 1 Inch

SOUTH ALGONA



BRUDENELL

GREATAN



Surface reservation 400' wide around all lakes & rivers.

GRIFFITH

PLAN NO M.148



# HARPER PROSPECT, TURNER'S ISLAND, LAKE CLEAR, SEBASTOPOL TOWNSHIP, RENFREW COUNTY

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JUN 12 1992

MINING LANDS BRANCH

## Geologic Map - Legend

- 1a Biotite-Quartz-Potassic feldspar Gneiss
- 2a Amphibole-Quartz-Plagioclase Gneiss
- 3a Gneissic, leucocratic Quartz Monzonite (locally contains up to 10% 1a, 2a)
- 4a Granite Pegmatite Dike
- 4b Syenite Pegmatite Dike
- 5a Calcite Vein (contains apatite ± biotite feldspar ± hornblende ± pyroxene ± scapolite ± titanite)

Note: This is a field legend and may be changed as a result of laboratory investigation. Order within map units does not imply geochronological order.

Magnetic declination 11° 37.3' W (1992).

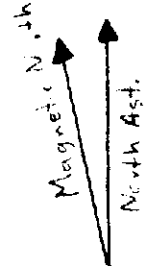
Scale 1:2000 1cm = 20m



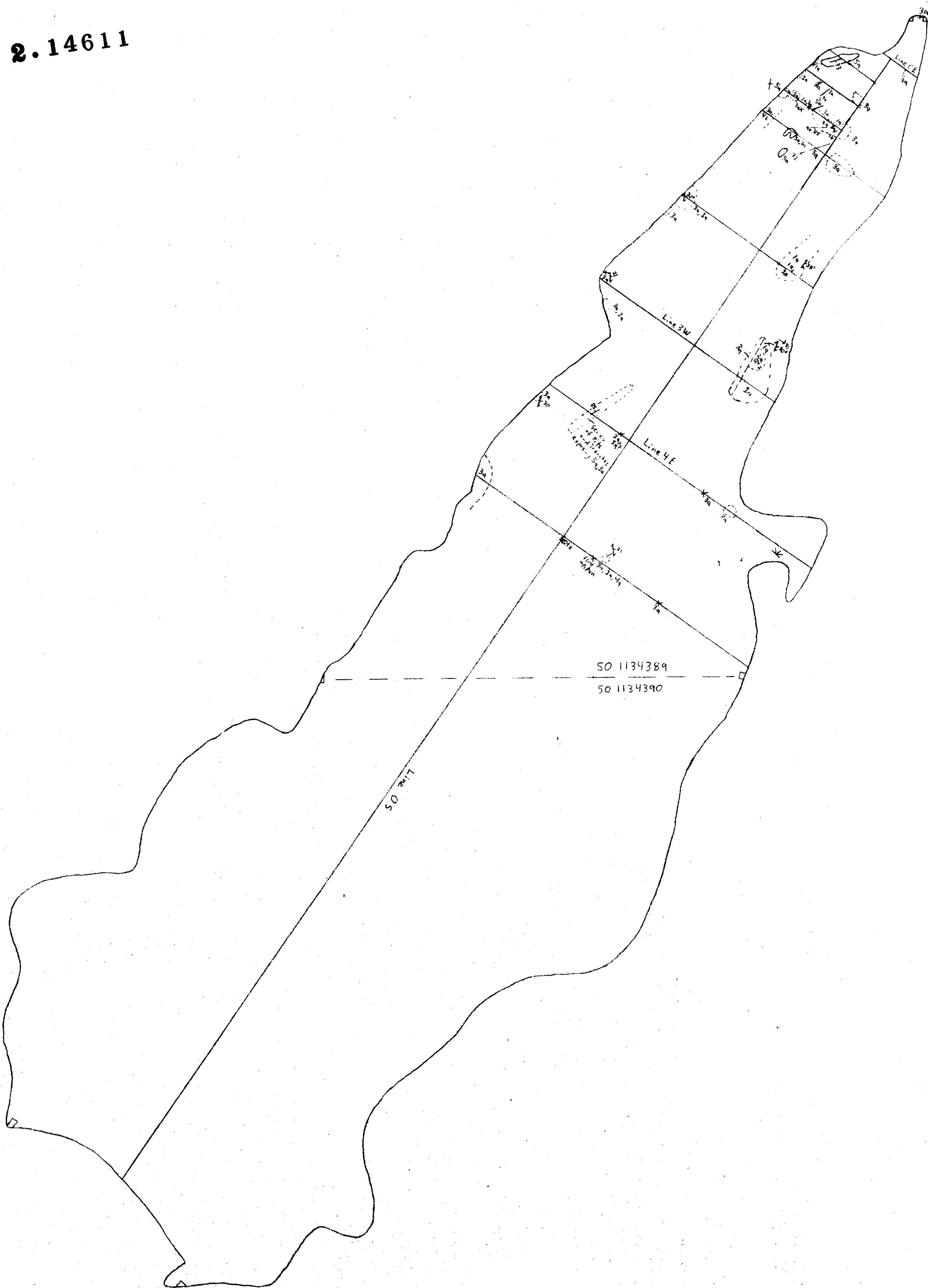
Every possible effort has been made to ensure the accuracy of the information presented on this map.

Mapped during 1992 by S. Harper with the assistance of D. Gratton, P.Eng (Chem).

- ⊗ X Outcrop (large, small)
- ∇ Marsh, Swamp
- Traverse Line
- ⊖ Trench, Pit
- ⊥ E Foliaion (Dip Unknown, Inclined, Vertical)
- ⊥ S + Strike and Dip of Calcite Vein (Dip Inclined, Vertical)
- Claim Post
- Claim Boundary
- ap Apatite
- pxn Pyroxene
- Qtz Quartz



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