

TELEPHONE (416) 977-1450
#FLEX (065-24758)

STEEP ROCK RESOURCES INC.

40 UNIVERSITY AVENUE, SUITE 710

TORONTO, ONTARIO

M5J 2G5



52J02SE8693 2.5909 SQUAW LAKE

010

PROTON MAGNETOMETER

and

VLF ELECTROMAGNETIC SURVEYS

HORN LAKE PROPERTY

STURGEON LAKE AREA

N.T.S. 52 - J - 2

STEEP ROCK RESOURCES INC.

September 30, 1983

000. 2. 2742

R.A. Bernatchez

P. Eng.

INTRODUCTION

Steep Rock Resources Inc. of Atikokan Ontario contracted Phantom Exploration Ltd. of Thunder Bay to conduct magnetic and electromagmetre surveys on the Horn Property during the summer of 1983.

LOCATION ACCESS AND GRIDS

The survey area is located approximately 2 km N-E of Rainbow Island and at the south end of the peninsula between the North Arm and the Northeast Arm of Sturgeon Lake approximately 6 km south west of the St. Anthony Mines on the west shore of Couture lake.

The property consists of 24 unleased mining claims numbered; PA 60152, 601958, 611965, 611966, 611967, 611968, 611969, 611970, 612062, 612063, 612064, 612064, 668458 to 668463, 668507, 668508, 668511, to 668514 inclusive, located on claim sheet No. M 1904 in the Patricia Mining Division. Six of these claims are presently held by Sherridon Johnson of the town of Vulcan, Alberta. The remainder of the claims all 100% own by Steep Rock Resources Inc. of Toronto, Ontario.

Access to the area is by boat or float plane. The nearest road access to the lake is from Camp Asgard located northwest of the property from Horizontal Bay. A second road access is from claims number AL 367 on the south shore of King Bay, both of these access can be travelled by snow machine in the winter.

A north south baseline was established on the west boundary of claims numbered 611970, 611966 and 611968. Picket lines were cut at 90⁰ to the baseline and established at every 100 metres. Picket stations were established at 25 metre intervals along the baselines and picket lines.

PERSONNEL

The day to day and over-all supervision of the geophysical program was under R.D. Middaugh of Phantom Exploration Service Ltd.

INSTRUMENTATION

MAGNETIC

A protom precision magnetometer (model MP-2) manufactured by Scintres Ltd. of Concord, Ontario was used for this survey. The total field measurement was read with a resolution of one gamma and all values were corrected for leanal variations using a MBS-2 model base station recorder, also manufactured by Scintrex Ltd. Readings were taken at 25 metre intervals on the grid lines. Where the magnetic gradient exceeded 300 gammas between 25 metre stations, on intermediate reading was taken at 12.5 meters.

ELECTROMAGNETIC

A V.L.F. EM-16 unit manufactured by Geonics Ltd. of Mississauga, Ontario, was used for the survey. Both in and out of phase readings were taken at 25 metre intervals on the grid lines. The transmitter station used was Annapolis, MD. with a frequency of Khz.

DISCUSSION OF RESULTS

Magnetic

The survey area is presented in plan form at the scale of 1:2500. The corrected magnetic data is plotted on this map and contoured at 100 gamma intervals.

This data indicates a heterogeneous sequence of rocks that exhibit a north south regional trend. The west portion of the claim group expresses relatively low magnetic readings.

This may be caused by the underlying granitic North Arm Platon.

Very high local magnetic gradient are expressed on the east shore of Horn Lake and may be caused by sulphide facies iron formation containing pyrrholite. The west side of Horn Lake expresses moderate fluctuations in the magnetics and are probably due to inter bedded units of mafic pillowed flows and tuffs.

ELECTROMAGNETIC

The survey area is presented in plan form at a scale of plan form at a scale of 1:2500 with the vertical scale set at 1 cm = 20% for the E.M. profile. Several conductors were detected within the surveyed area and are outlined below.

A - A' line 9 + 00N, 6 + 2 SE, 10 + 00 N, 5 + 62.5 E

This anomaly has good conductivity and no magnetic associations.

B - B' line 11 + 00N S + 00 E to 11 + 00N, 5 + 50E

This anomaly has good conductivity and no magnetic associations.

C - C' line 12 + 00N 6 + 12.5E to 14 + 00N, 6 + 00E.

This anomaly has good conductivity and no magnetic association.

D - D' line 9 + 00N 1 + 00E to 11 + 00N, 0 + 35 E.

This anomaly has low conductivity and no magnetic association.

CONCLUSION AND RECOMMENDATIONS

The area is underlain by a north south striking sequence of mafic metavolcanic rocks of basaltic to andesitic in composition with some inter bedded sequence of medasediments.

The magnetic trends assists in outlining the contact between the volcanics and sediments and the volcanics and granites to the west.

Detail mapping is recommended to better evaluate the anomolous trends found on the property. The main interest in the property is gold mineralizations. A geochemical humus sampling may better define any gold bearing azons not necessarily outlined by the geophysical surveys.

Subsequent to the above surveys a drill program should be considered to test the results.



October 13/83

2.5909

Oct 18

Report of Work
(Geophysical, Chemical,
Geochemical and Exploration)

#83-85

The Mining Act

file

Type of Survey: **Ground Magnetic and Electromagnetic** Technology of Work: **Squaw Lake (M1904)**

Claim Identifier: **Sherridan Johnson** Precinct or License No.: **S-3513**

Address: **Vulcan, Alberta**

Survey Company: **Phantom Exploration Services Limited** Date of Survey (from & to): **1 3 83 15 4 83** Total Area of Claim: **3.2 km**

Name and Address of Author (of Geo Technical report): **R. D. Middaugh, RR 4, Alice Ave., Thunder Bay, Ontario P75 5E5**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	40
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
	Geophysical	Days per Claim
	- Electromagnetic	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys	- Magnetometer	
	- Radiometric	
	Geological	
	Geochemical	

Mining Claim		Expend. Days Cr.	Mining Claim		Days Cr.
Prefix	Number		Prefix	Number	
	611965	60			
	611966	60			

PATRICIA MINING DIV.
RECEIVED
JUL 26 1983
A.M. 7 8 9 10 11 12 1 2 3 4 5 6

PATRICIA MINING DIV.
RECEIVED
JUL 12 1983
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

Pa. 611965

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

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures **S** ÷ **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: **120** Date Recorded: **July 12, 1983**

Date Received at Recorded: **83.12.22**

Date: **July 7, 1983**

Recorded Holder or Agent's Signature: *Raymond A. Bernatchez*

Certification Verifies Report of Work

I hereby certify that I have a personal and intimate knowledge of the work set forth in the Report of Work and that the work was done during and after its completion and the same is true.

Name and Postal Address of Person Certifying: **Raymond A. Bernatchez, Steep Rock Resources Inc, Atikokan, Ontario P0T 1C0**

Date: **July 7, 1983**



In the matter of mining claims:

PA 611965
611966

in the Squaw Lake Area.

On consideration of an application from the recorded holder, Sherridan Johnson
under Section 77 Subsection 22 of The Mining Act, I hereby order that the time for filing reports and plans in support of
Electromagnetic and Magnetometer assessment work recorded on July 12, 1983
be extended until and including October 18, 1983.

1983-10-14
Date


Signature of Director, Land Management Branch

Copies:

Mining Recorder, Sioux Lookout, Ontario
Mr. Sherridan Johnson, Vulcan, Alberta
Phantom Exploration Services Ltd., Thunder Bay, Ont.
FILE



Ministry of
Natural
Resources

Geotechnical
Report
Approval

File # 2.5909

Mining Lands Comments

To: Geophysics *Mr. R. Barlow*

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Dec 5/83</i>	Signature <i>R. Bl</i>
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To: Geology - Expenditures

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Geochemistry

Comments
<i>L.D.</i>

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

F.W.M.



Ontario
Resources

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

#83-85

Sept 10th

Instructions - Fill in all boxes.
If you have a previous report, attach a
copy of it to this form.
Note - Only days credits calculated in the
"Expenditures" section may be entered
in the "Expend. Days Cr." column.
- Do not use shaded areas below

Mining Lands

The Mining Act

Type of Survey(s) Ground Magnetic and Electromagnetic	Township or Area Squaw Lake (M1904)
Claim Holder(s) Sherridan Johnson	Prospector's Licence No. S-3513
Address Vulcan, Alberta	
Survey Company Phantom Exploration Services Limited	Date of Survey (from & to) 1 Day 3 Mo. 83 15 Day 4 Mo. 83
Total Miles of line Cut 3.2 km	
Name and Address of Author (of Geo-Technical report) R. D. Middaugh, RR 4, Alice Ave., Thunder Bay, Ontario P75 5E5	

Credits Requested per Each Claim in Columns at right			Mining Claims Traversed (List in numerical sequence)					
Special Provisions	Geophysical	Days per Claim	Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
			Prefix	Number		Prefix	Number	
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20	PA	611965	60			
	- Magnetometer	40		611966	60			
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric							
	- Other							
	Geological							
	Geochemical							
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim						
	- Electromagnetic							
	- Radiometric							
	Geological							
	Geochemical							
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim						
	Magnetometer							
	Radiometric							

RECEIVED

AUG 8 1983

MINING LANDS SECTION

PATRICIA-MINING DIV.
RECEIVED
1st Rec'd.
JUL 26 1983
A.M. 7 8 9 10 11 12 P.M. 1 2 3 4 5 6

PATRICIA MINING DIV.
RECEIVED
JUL 12 1983
A.M. 7 8 9 10 11 12 P.M. 1 2 3 4 5 6

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.

Date July 7, 1983
Recorded Holder or Agent Signature Raymond A Bernatchez

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
Raymond A. Bernatchez, Steep Rock Resources Inc, Atikokan, Ontario POT 1C0

Date Certified July 7, 1983
Certified by (Signature) Raymond A Bernatchez

Pa. 611965
Total number of mining claims covered by this report of work. 2

For Office Use Only

Total Days Cr. Recorded 120
Date Recorded July 12, 1983
Mining Recorder [Signature]
Date Approved as Recorded [Signature]
Branch Director

October 17, 1983

Sherridan Johnson
Box 725
Vulcan, Alberta
TOL 280

Dear Sir:

Enclosed is a copy of a Report of Work for Magnetometer and Electromagnetic assessment work credits that was recorded by the recorder on July 12, 1983 on mining claims PA 611965-96 et al in the Area of Squaw Lake.

We have no record that you provided the full reports and maps to the Minister within the sixty day period provided by Section 77 of The Mining Act.

Unless you can provide evidence by October 31, 1983 that the reports and maps were submitted as required, the mining recorder will be directed to cancel the work credits recorded on July 12, 1983.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

A. Burst:mc

Encl.

cc: Mining Recorder
Sioux Lookout, Ontario

83-85

2.5909

1983 10 24

Mr. Albert Hanson
Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims PA 611965-66 in the Area of Squaw Lake.

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 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

R. Pichette:mc

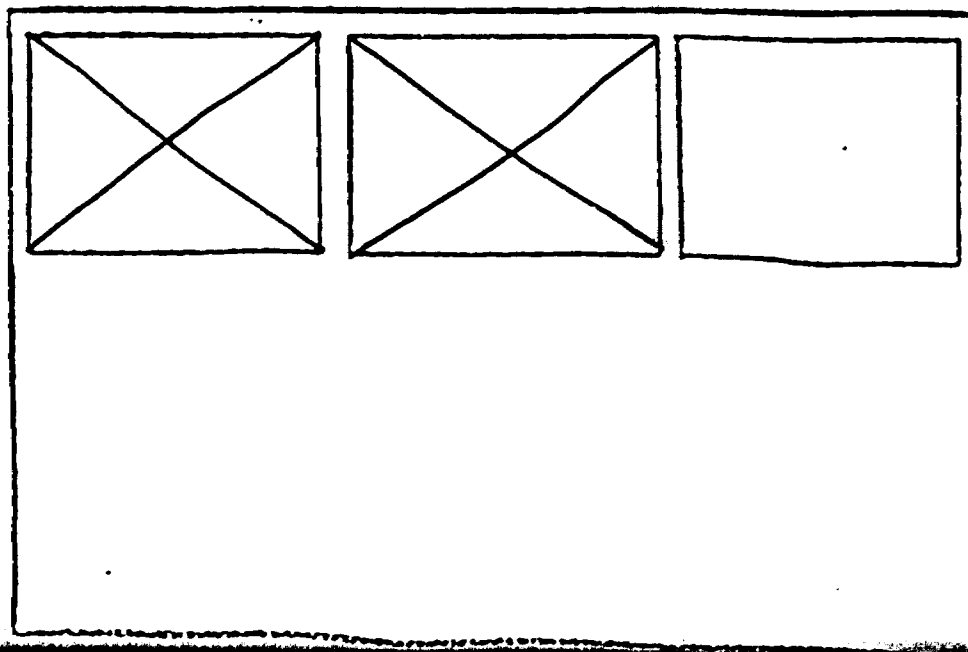
cc: Sherridan Johnson
Box 725
Vulcan, Alberta
TOL 2B0

cc: Phantom Exploration Services Limited
R.R.#4 Alice Avenue
Thunder Bay, Ontario
P7C 5E5

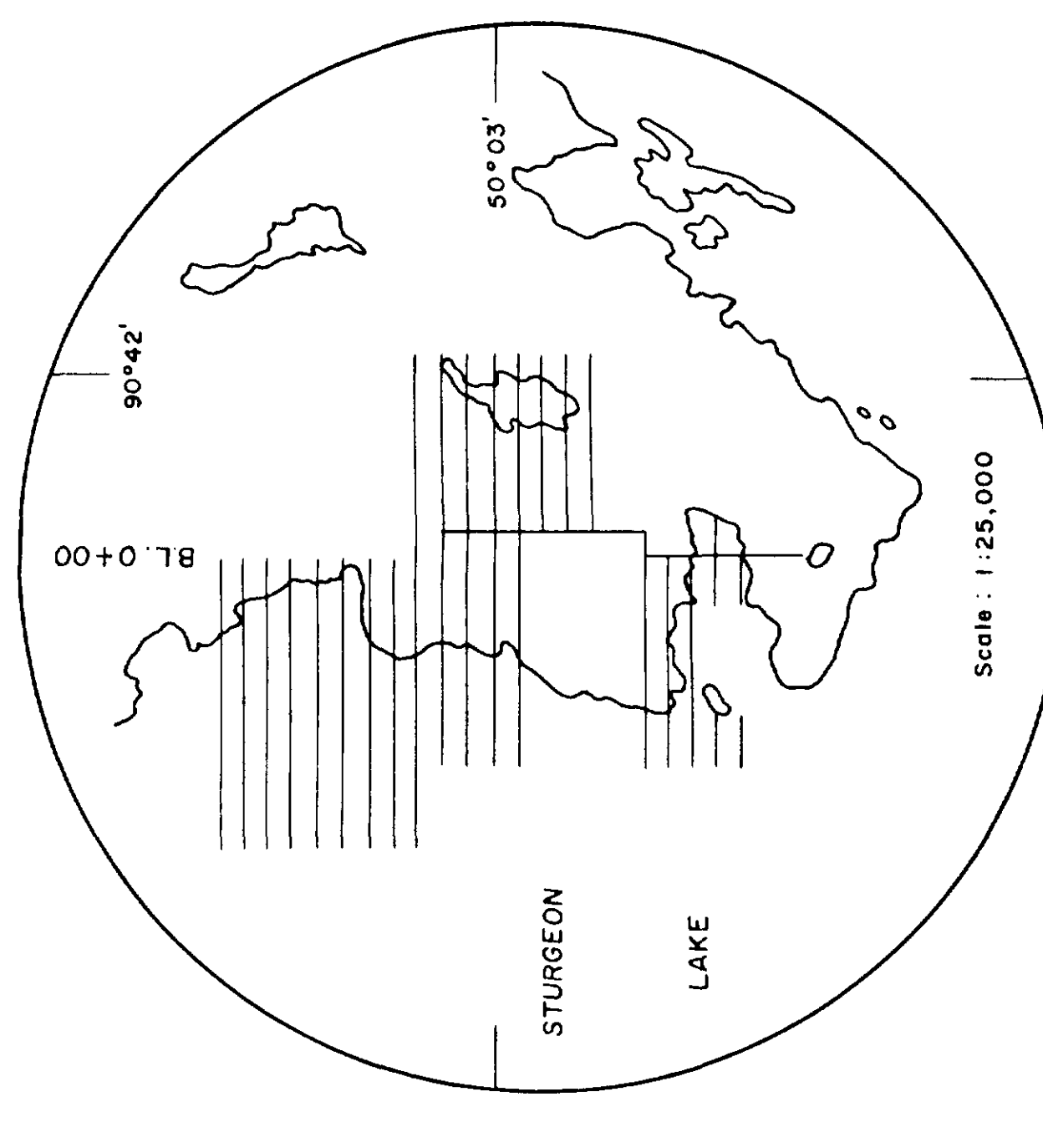
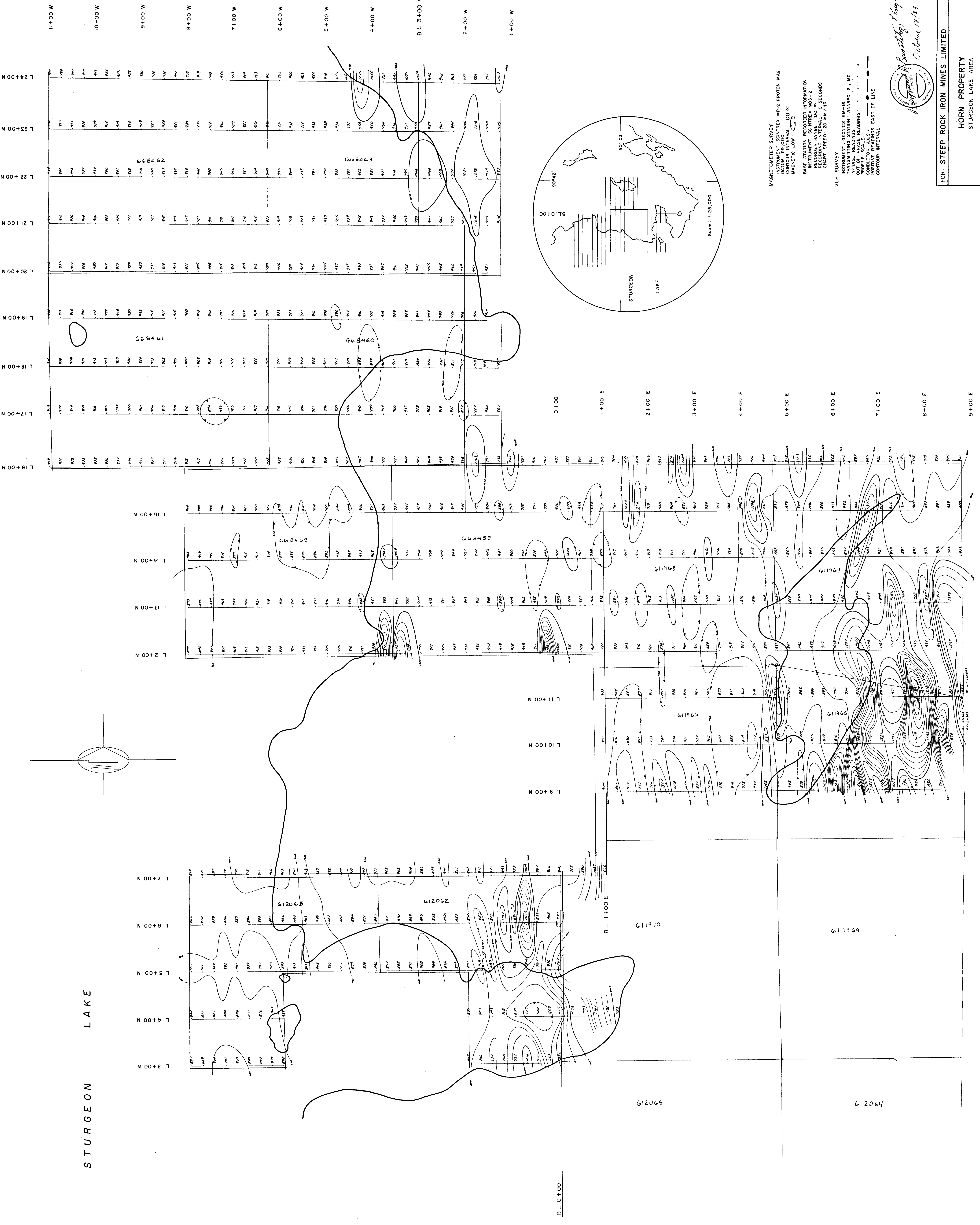
cc: Steep Rock Resources Inc
Atikokan, Ontario
POT 1C0
Att: R. Bernatchez

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52J/02SE-0052, #1, #2

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)



STURGEON LAKE



MAGNETOMETER SURVEY
 INSTRUMENT: SCIENTEX MP-2 PROTON MAG
 DATUM: 55,000 FT. MAGNETIC
 MAGNETIC LONGITUDE: 90° 42'

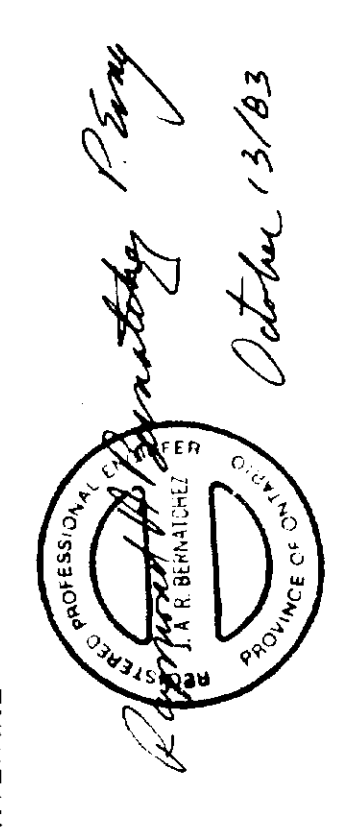
BASE STATION RECORDER INFORMATION
 INSTRUMENT: GEONICS EM-10B, MD.
 PHASE READINGS: 100 Hz
 RECORDING RANGE: 100 Hz
 RECORDING INTERVAL: 10 SECONDS
 CHART: SPEED 20 MM/HR

VLF SURVEY
 INSTRUMENT: GEONICS EM-10B, MD.
 PHASE READINGS: 100 Hz
 RECORDING RANGE: 100 Hz
 RECORDING INTERVAL: 10 SECONDS
 CONDUCTOR AXIS: EAST OF LINE
 CONTOUR INTERVAL: 100

Sanctuary
 October 13/83

FOR: STEEP ROCK IRON MINES LIMITED
 HORN PROPERTY
 STURGEON LAKE AREA
 MAGNETOMETER MAP
 DATE: APRIL 1983 SCALE: 1:2500 INTS: 52-J-02
 BY: PHANTOM EXPLORATION SERVICES LTD.

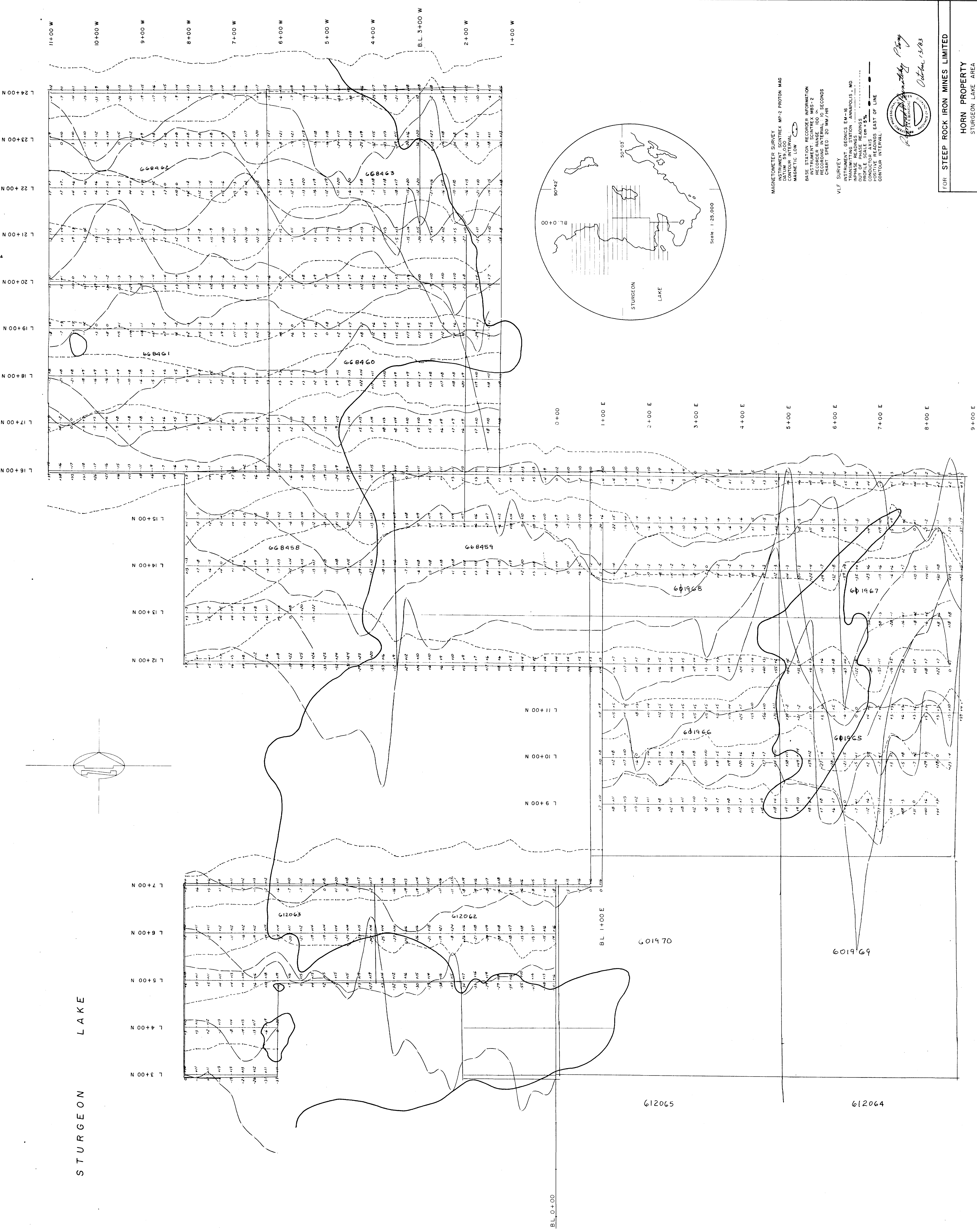
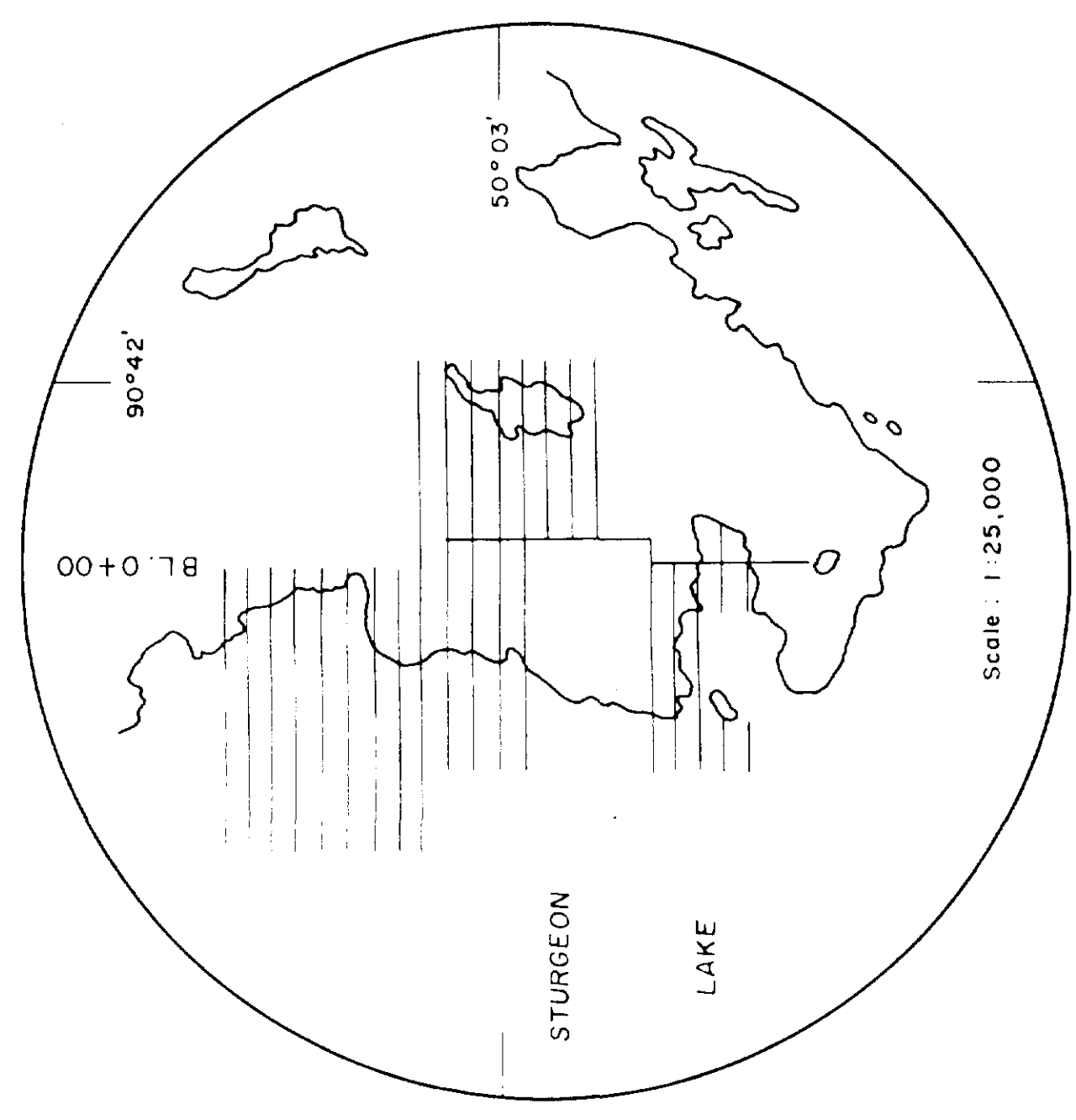
★ 52J/02SE-0052 #1



MAGNETOMETER SURVEY
 INSTRUMENT: GEMICS EM-16
 PHASE READINGS: 100 HZ
 RECORDING INTERVAL: 10 SECONDS
 CHART SPEED: 20 MM/HR

BASE STATION RECORDER INFORMATION
 INSTRUMENT: GEMICS EM-16
 PHASE READINGS: 100 HZ
 RECORDING INTERVAL: 10 SECONDS
 CHART SPEED: 20 MM/HR

VLF SURVEY
 INSTRUMENT: GEMICS EM-16
 PHASE READINGS: 100 HZ
 RECORDING INTERVAL: 10 SECONDS
 CHART SPEED: 20 MM/HR



★ 52 J/02 SE - 0052 #2