



42B01NE0029 2.12093 REEVES

010

*REPORT on a
MAGNETOMETER SURVEY
Southwestern Portion of
Reeves Joint Venture Property
Reeves and Penhorwood Townships, Ontario
for
GLEN AUDEN RESOURCES LIMITED
and
GOLDROCK RESOURCES INC.
by
Ron Burk, M.Sc.Eng.
January, 1989*

RECEIVED

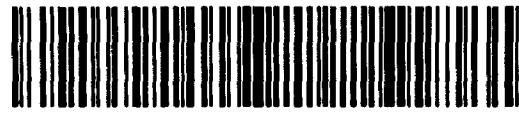
JAN 24 1989

MINING LANDS SECTION

SUMMARY

A ground magnetometer survey has been carried out on the western portion of the Reeves Joint Venture Property of Glen Auden Resources Limited and Goldrock Resources Inc. which is located some 55 kilometers west of Timmins, Ontario. Approximately 86.4 kilometers of cut grid lines were surveyed on 64 unpatented mining claims.

Magnetic contour patterns indicate the surveyed area is underlain by a westerly striking volcanic sequence consisting of iron-rich basaltic flows interlayered with other mafic to intermediate volcanic rocks. The volcanic units are intruded by northerly striking mafic dikes which in some cases may be related to a large mafic/ultramafic intrusive complex situated just to the west of the surveyed area. A southeasterly trending zone of low magnetic response in the northern part of the survey area is interpreted to be a fault or shear zone and is considered to be prospective for future gold exploration.



42801NE0029 2.12693 REEVES

010C

TABLE OF CONTENTS

	<i>PAGE</i>
SUMMARY.....	i
INTRODUCTION.....	1
PROPERTY LOCATION AND ACCESS.....	1
TOPOGRAPHY AND VEGETATION.....	2
GENERAL GEOLOGY.....	2
PREVIOUS WORK.....	3
SURVEY STATISTICS AND METHOD.....	3
SCHEDULE A.....	4
PURPOSE OF THE SURVEY.....	4
DATA INTERPRETATION.....	5
CONCLUSIONS AND RECOMMENDATIONS.....	8
REFERENCES.....	10

CERTIFICATION

LIST OF FIGURES

Figure 1 Property Location Map
Figure 2 Area of Magnetometer Survey

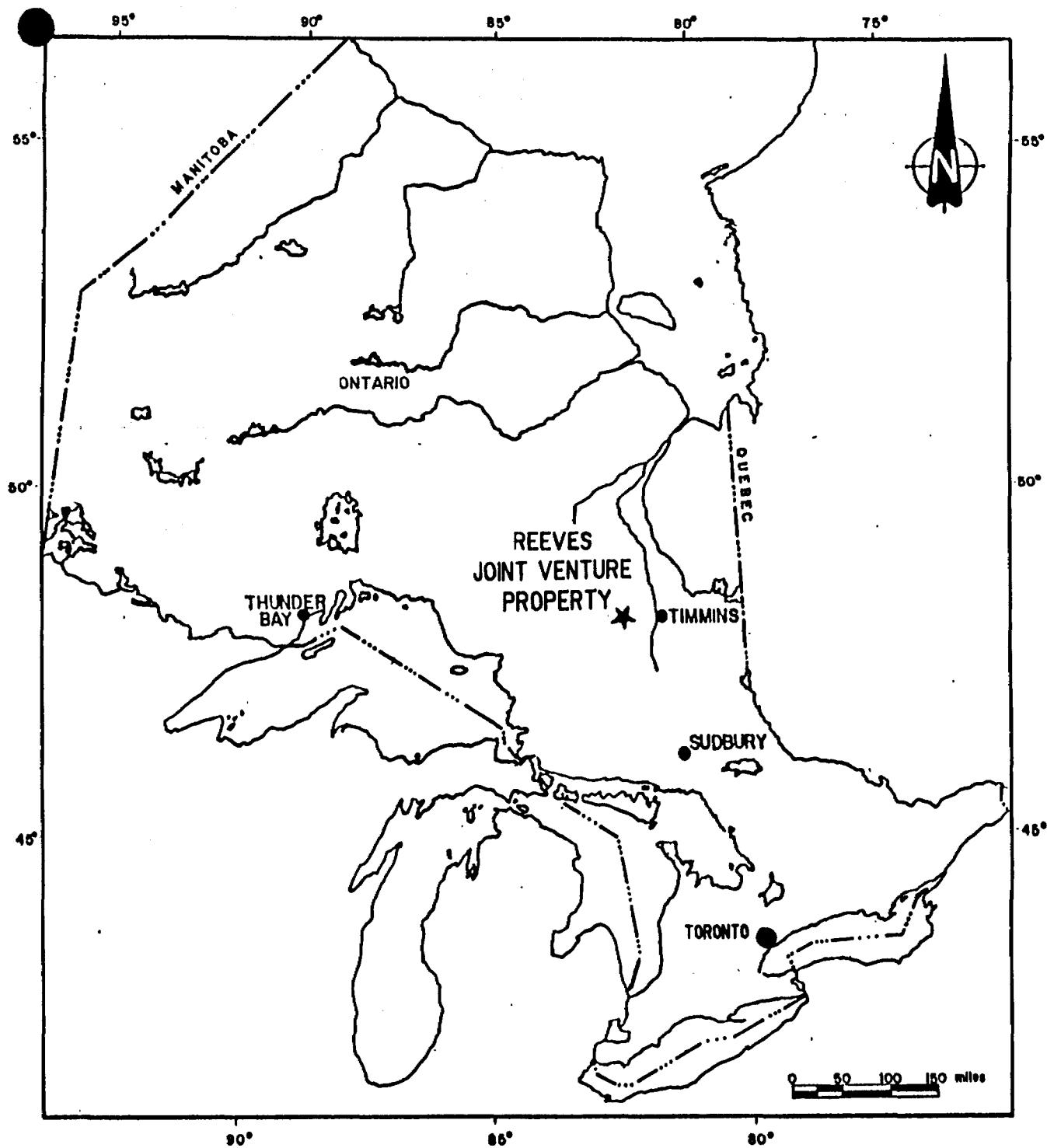
Map 1 (Back Pocket) Raw Magnetics Data & Claim Map
Map 2 (Back Pocket) Contoured Magnetics Data; 1:5000 Scale

INTRODUCTION

An integrated gold exploration program is being conducted on the 426-claim Reeves Joint Venture Property located in Reeves, Sewell, Penhorwood and Kenogaming Townships, Porcupine Mining Division, Ontario. The property is jointly held by Toronto-based junior mining companies Glen Auden Resources Limited and Goldrock Resources Inc. Late in 1988 a ground magnetometer survey was completed on 64 claims in the western portion of the property. This report presents the results of this survey along with interpretations of the data which have been made using available geological information.

PROPERTY LOCATION AND ACCESS

The Reeves Joint Venture (RJV) property encompasses approximately 6,850 hectares broadly centred on the four contiguous corners of Reeves, Sewell, Penhorwood and Kenogaming Townships, some 55 kilometers west of Timmins, Ontario (Figure 1). Access to the property is via Highway 101 which skirts the northern boundary of the property, and the Penhorwood logging road. A network of secondary logging roads allows good access to about three quarters of the property.



R. Bank R. R. Banks

REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.		
	for GOLDROCK RESOURCES INC./ GLEN AUDEN RESOURCES LTD. J.V.		
Title	PROPERTY LOCATION MAP		
	Date: Oct. 87	Scale: 1"=160mi.	N.T.S.:
	Drawn: B.S.B.	Approved:	File: M-223.

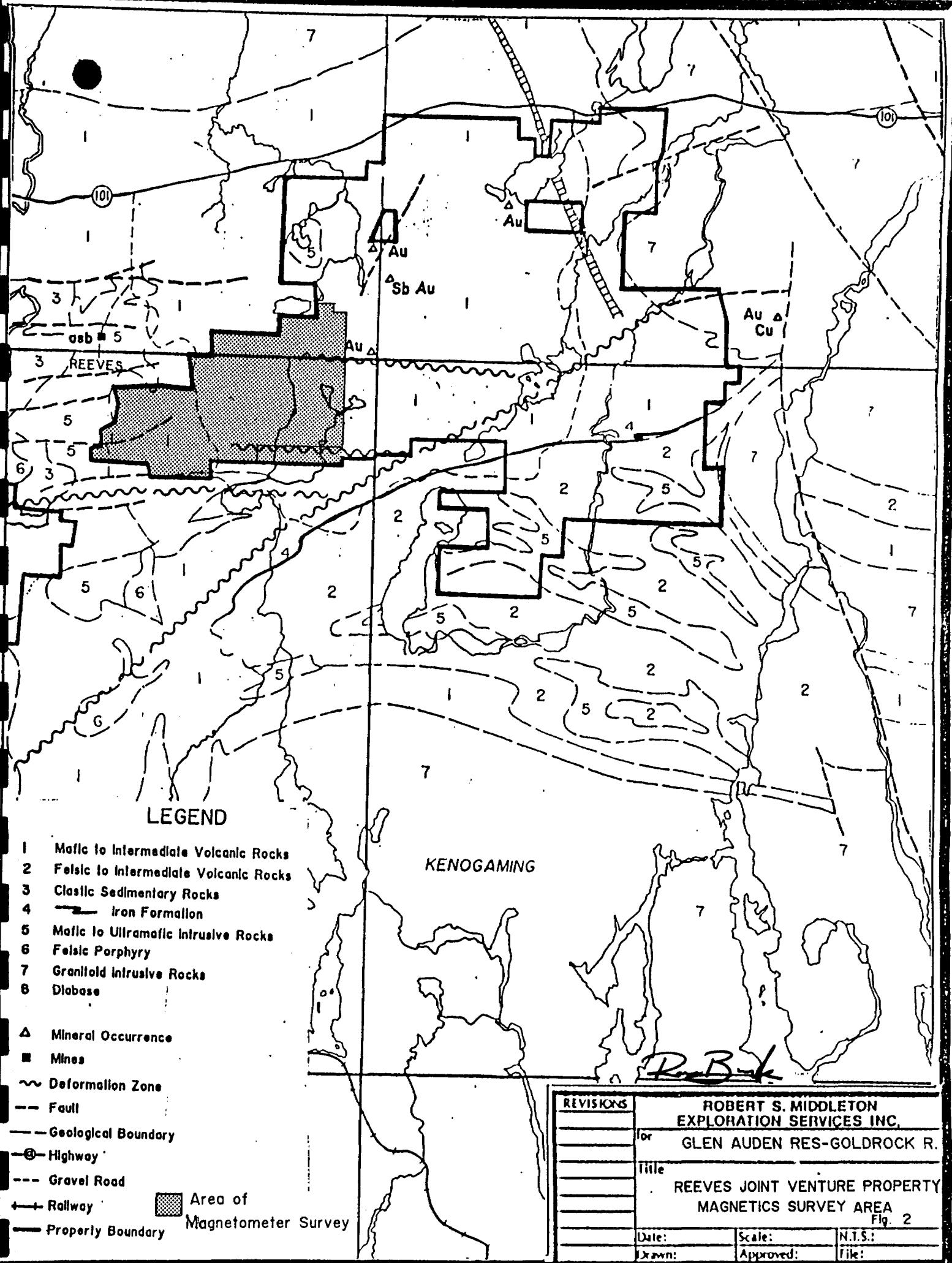
TOPOGRAPHY AND VEGETATION

Generally, there is little topographic relief on the RJV property. As is common in this part of northeastern Ontario, low ridges are separated by broad, low-lying areas where there are a number of small lakes. Deposits of glacial debris including sand hills, boulder tills and an esker form some of the more prominent topographic features on the property.

Much of the original coniferous and mixed forest cover has been removed by logging and replaced by secondary growth of poplar, birch and moose maple. Cedar woods are common in low-lying areas. Rock exposures constitute only a few percent of the total area, with the greatest concentration of outcrop occurring in the western part of the property where logging operations have been most recently carried out.

GENERAL GEOLOGY

The Reeves Joint Venture property lies in the northern part of the Archean-age Swayze Greenstone Belt (Figure 2) and covers typical sequences of mafic submarine flows and less abundant intermediate to felsic volcanics (Milne, 1972; Burk, 1987). Exposures of sedimentary rocks are sparse on the property, although two prominent units of oxide and sulfide facies banded iron formation have been identified. Intrusive sheets and pods of ultramafic and mafic rocks are common, particularly in the



western and southeastern portions of the claim group.

PREVIOUS WORK

Ontario Geological Survey maps #2230 and 2231 (Milne, 1972) are the most recent published for the area covered by the RJV property. Owing to the piecemeal assemblage of the 426 claim property, geological mapping and geophysical surveys have been done on different portions of the property at various times since 1986 by the current property holders. A list of reports describing these work programs is provided under 'References' at the end of this report. In recent times, the only previous work done in the area covered by the magnetometer survey described here has been an airborne magnetics-EM survey (Dighem, 1984) and geological mapping by Burk (1987).

SURVEY STATISTICS AND METHOD

A total of 86.4 kilometers of line were cut and chained on 64 claims (see Schedule A). Line-cutting began October 03, 1988 and the survey was completed November 19, 1988. The base-line on the grid follows the Reeves-Penorwood township boundary. North-south oriented lines are spaced 125 meters apart, and survey stations are at 25 meter intervals.

The magnetics data were collected with a proton precession magnetometer which measures the absolute value of the total field

of the earth to an accuracy of $\pm 1n$ Tesla. The magnetometer was carried down the survey line by a single operator, with the sensor mounted on a short pole to remove it from the surface geologic noise. Readings were normally taken at 25m intervals, and at 12.5m intervals where the operator observes a high gradient (anomaly). The readings are corrected for changes in the earth's total field (diurnal drift) by measuring and recording the drift at a base station and a number of "tie-points" several times a day.

SCHEDULE A

Porcupine Mining Division Claims covered by Magnetometer Survey

929606 - 929612 inclusive

944890 - 944897 inclusive

944899

944901 - 944910 inclusive

944912 - 944917 inclusive

901339 - 901360 inclusive

947101 - 947109 inclusive

947252

PURPOSE OF THE SURVEY

The magnetics survey described in this report was designed to extend the existing ground magnetics coverage of the Reeves Joint Venture property. Early in 1988, a ground magnetometer survey was completed on a group of 57 claims east of, and adjoining, the claim block covered by the survey described here.

The previous survey results were interpreted as reflecting a southwesterly to westerly striking sequence of mafic to intermediate volcanics which are transected by a number of vaguely defined linear deformation zones. The intention of the recent survey was to complete the magnetic definition of the volcanic stratigraphy on the western portion of the RJV property, and to identify potential alteration/deformation zones which would be prospective for gold exploration.

DATA INTERPRETATION

The magnetics data is presented as a 1:5000 scale map of contoured magnetic field readings. Measured readings ranged between 58,300 and 62,500 gammas (nT), but most commonly between 58,500 and 59,500 gammas. The survey was successful in distinguishing rock units based on their magnetic susceptibilities, and thus contributes to an interpretation of the geology of the survey area.

A most obvious feature of the contoured data are the three units or groups of units of relatively magnetic rock which strike in a westerly direction across the surveyed area; one unit trends south of the 2500 South tie-line, another extends across the central portion of the grid, while the third unit lies roughly 500 meters north of the central unit.

Geological mapping south of the 2500 South tie-line

identified exposures of medium-grained ultramafic rock, specifically on Line 4900W at 2700S, as well as large outcrops of gabbroic rock. It appears that the high magnetic responses south of the 2500 South tie-line reflect an assemblage of ultramafic and mafic sill-like bodies which have intruded westerly striking mafic flows. It is also possible that ultramafic lava rock forms part of this assemblage.

Sampling of outcrops in the central portion of the grid determined the presence of iron-rich tholeiitic basalt containing observable amounts of magnetite. Consequently, the central band of rocks with high magnetic susceptibility in all probability consist of a series of magnetite-bearing tholeiitic basalts. A noticeable feature of the central band of magnetic rocks is that there is a sharp decrease in the thickness of the band west of Line 3650W; from about 500 to 200 meters.

The northern band of magnetically responsive rock coincides with a series of outcrops of tholeiitic basalt, as determined from chemical analyses, as well as a couple of outcrops of oxide and sulfide facies iron formation. The iron-rich mafic flows and exhalative iron formation form a sequence which is about 150 meters thick.

Areas of the grid which are marked by relatively low magnetic response correspond to areas mapped as being underlain by intermediate volcanics. Lithogeochemical analyses of volcanic

rocks exposed north of the northern band of magnetic basalts determined the presence of tholeiitic dacite flows.

In addition to defining a westerly striking volcanic sequence composed of strongly magnetic basalts interlayered with moderately magnetic volcanics, the magnetics data has recognized a series of narrow, northerly trending magnetic units which transect the supracrustal units. Interpreted as mafic dikes, likely Proterozoic in age, these magnetic units are most common in the central portion of the grid area, but also occur along the eastern margin of the survey. A cluster of magnetic rocks centred on Line 2775W at the baseline has been identified as being gabbroic in composition, and may be related to the large mafic/ultramafic intrusive complex located just northeast of the grid area in Reeves Township.

Identification of structural features using the contoured magnetics data is less reliable than the representation of lithologic sequences. However, two structures may be inferred from the data. The sharp reduction in thickness of the central band of magnetically responsive rock west of Line 3775W may be reflecting a northerly trending fault which is at least partially occupied by a diabase dike. Vertical displacement along this proposed fault could result in a relatively thin section of the iron-rich basalt being juxtaposed with a thicker portion of the same unit. The other proposed structure is defined by a linear

series of low magnetic response areas which extend from Line 3650W at the baseline to Line 1900W at 700S. This linear magnetic "low" appears to cross-cut the northern band of magnetic basalt, suggesting that it may be a zone of faulting or shearing along which carbonatization, i.e. magnetite break-down, has occurred.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey done on the western claims of the Reeves Joint Venture property has furthered the understanding of the geology of the property. The contoured data has established that a westerly striking sequence of iron-rich basalts is interlayered with relatively weakly magnetic volcanic rocks generally of intermediate composition. Apparently, a swarm of mafic dikes is identified in the central portion of the surveyed area, with the dikes striking perpendicular to the volcanic units.

Structurally, the geology underlying the survey area is quite simple. Except for a gentle flexure in the strike of the northern band of magnetic rock, there is no evidence of major folding. Furthermore, indications of faulting are only vaguely suggested by the magnetics data. Probably the most significant structural feature in terms of exploration prospectivity is a southeasterly trending zone of low magnetic response which may

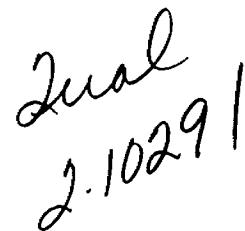
represent a zone of shearing and hydrothermal alteration where carbonate minerals have formed at the expense of magnetite. This form of alteration is characteristic of typical Archean greenstone-hosted gold deposits.

Based solely on the magnetics data, future exploration work is recommended for the northern portion of the grid area, and specifically where a southeasterly trending fault or shear is indicated as transecting a unit of iron-rich basalt. This work is suggested to initially consist of an induced polarization survey. A mineralized shear zone would be marked by pyritic, chlorite-sericite-carbonate schist which is geophysically represented by zones of low magnetic susceptibility coinciding with zones of moderate to high resistivity and chargeability. Any induced polarization anomalies detected along the proposed structure should than be trenched using a back-hoe or possibly diamond drilled.

Respectfully submitted



Ron Burk, M.Sc.Eng.



2 mal
J.10291

REFERENCES

- BURK, R.
1987 Geological report on the Reeves Joint Venture Property of Goldrock Resources Inc. and Glen Auden Resources Limited, Reeves, Sewell, Penhorwood and Kenogaming Townships, Porcupine Mining Division.
- BURK, R.
1988A Report on Lithogeochemical Study, Reeves Joint Venture Property for Goldrock Resources Inc. and Glen Auden Resources Limited.
- BURK, R.
1988B Report on Magnetometer Survey on the Reeves Joint Venture Property of Glen Auden Resources Limited and Goldrock Resources Inc.
- BURK, R.
1988C Report on the Outcrop Stripping - Trenching Program, Reeves Joint Venture Property for Glen Auden Resources Limited and Goldrock Resources Inc.
- DIGHEM LTD.
1983 Dighem survey of the Foleyet area, Ontario. Dighem Limited for MPH Consulting Ltd.
- FROSTAD, S.
1986 Report on the Geological Survey on the Goldrock Resources Inc. Sewell and Reeves Townships property.
- GARNER, D.
1987 Progress Report: Trenching and Sampling on the Reeves Joint Venture Property of Goldrock Resources Inc. and Glen Auden Resources Limited.
- MILNE, V.G.
1972 Geology of the Kukatash-Sewell Lake area, District of Sudbury; Ontario Department of Mines Geological Report 7, 116p., Maps 2230 and 2231.

REFERENCES (Cont'd)

PYKE, D.R.
1987

*Report on the Geology of the Kukatash area,
Reeves, Sewell, Penhorwood and Kenogaming
Townships.*

CERTIFICATION

I, Ron Burk of 29 Wardencourt Drive, Agincourt, Ontario certify that;

1. I am a graduate of the University of Toronto with a Bachelor of Applied Science in Geo-Engineering
2. I am a graduate of Queen's University with a Master of Science, Geological Engineering.
3. I have been practising my profession in Canada for 5 years.
4. I have no economic interests in the property covered by this report.

Dated this January 5, 1989
TIMMINS, Ontario



Ron Burk



Ministry of
Northern Development
and Mines

Report of Work

(Geophysical, Geological,
Geochemical and Expenditures)

W # 906-44

Min:



42801NE0029 2.12093 REEVES

900

Type of Survey(s)

Magnetometer Survey

Claim Holder(s)

Glen Aiden Resources Limited

Address

90 P.O. Box 1637 Timmins Ontario P4N 7W8.

Survey Company

R.S. Middleton Exploration Services Inc.

Date of Survey (from & to)

Day

Mo.

Day

Mo.

Day

Mo.

Day

Mo.

82 11 88 11 11 88

Total Miles of line Cut

45 miles

Name and Address of Author (of Geo-Technical report)

R. Lachapelle, P.O. Box 1637, Timmins Ontario P4N 7W8.

TOWNSHIP or Area

Penholdwood

Prospector's Licence No.

T-1915

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	40
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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

Airborne Credits	Electromagnetic	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Magnetometer	
PORCUPINE MINING DIVISION	Radiometric	
RECEIVED		
FEB 15 1989		
MINING LANDS SECTION		

Expenditure Days Credits (notional power stations)	Electromagnetic	Magnetometer	Radiometric
Type of Work Performed			
JAN 3 1989			
Performed on Claim(s)			

Calculation of Expenditure Days Credits		
Total Expenditures		Total Days Credits
S	÷ 15 =	

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	Recorded Holder or Agent (Signature)
November 30 1988	Cynthia Bernatay

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

Bernie J. Bernatay 28 Main Street, Penholdwood, Ontario T

Mining Claims Traversed (List in numerical sequence)					
Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	901341		P	944908	
	901342			944909	
	901343			944914	
	901346			944915	
	901348			944916	
	901349			947101	
	901350			947102	
	901352			947103	
	901353			947104	
	901354			947105	
	901355			947106	
	901356			947107	
	901357			947108	
	901358			947109	
	901359				
	901360				
	944894				
	944895				
	944896				
	944902				
	944903				
	944904				
	944907				

RECORDED
JAN - 3 1989

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

37

For Office Use Only	
Total Days Cr. Recorded	Date Recorded
1480	JAN. 3 1989

Mining I. Director

Branch Director

B. White

See revised statement

AB



Ministry of
Northern Development
and Mines

Technical Assessment
Work Credits

File
2.12093

Date

March 10 1989

Mining Recorder's Report of
Work No.
W8906-044

Recorded Holder

GLEN AUDEN RESOURCES LIMITED

Township or Area

PENHORWOOD

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	P 901341-42-43-46-48-49
Magnetometer _____ 40 days	901352 to 60 incl. 944894-95-96
Radiometric _____ days	944902-03-04-07-08-09
Induced polarization _____ days	944914 to 16 incl.
Other _____ days	947101 to 09 incl.
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input type="checkbox"/>
<input 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.	

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

20 Days Magnetometer

P 901350

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

insufficient technical data filed

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.



ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

136 Cedar St. So.
P.O. Box 1637
Timmins, Ontario
P4N 7W8
Telephone (705) 264-4246
Fax: 705-267-6110

Suite 301
121 Richmond St. W.
Toronto, Ontario
M5H 2K1
Telephone: (416) 861-9316
Fax: 416-861-1367

RECEIVED

January 23, 1988

JAN 24 1989

Ministry of Northern Development and Mines
Mining Lands Section
Mines and Minerals Division
Whitney Block, Room 6610
Queens Park
Toronto, Ontario
M7A 1W3

MINING LANDS SECTION

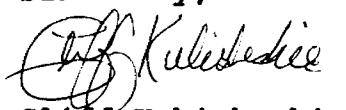
Attn: Robert Musgrove

Re: our job M-223

Dear Robert:

As per our conversation of January 18, I have enclosed reports and maps for a Magnetometer Survey completed on the Glen Auden/Goldrock Sewell-Reeves Joint Venture. Please note that I have also submitted a subsequent Report of Work to cover claims which were not included in the original. Thanks once again for your time.

Sincerely,


Cliff Kubisheskie



Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

April 19, 1989

Mining Lands Section
3rd floor, 880 Bay Street
Toronto, Ontario
M5S 1Z8

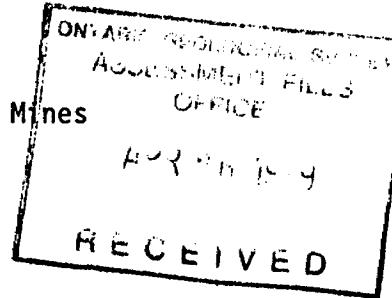
Telephone: (416) 965-4888

Your file: W8906-044,058
Our file: 2.12093

Mining Recorder
Ministry of Northern Development and Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Re: Notice of Intent dated March 10, 1989
Geophysical (Magnetometer) Survey submitted
on Mining Claims P 901339 et al in the
Townships of Reeves and Penhorwood.



The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

AB DK:eb
Enclosure

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

Resident Geologist
Timmins, Ontario

Glen Auden Resources Ltd.
Timmins, Ontario

MELROSE TP. M.861

THE TOWNSHIP
OF

REEVES

**DISTRICT OF
SUDBURY**

PORCUPINE
MINING DIVISION

SCALE: 1-INCH - 40 CHAINS

LEGEND

- | | |
|-----------------------|--------|
| PATENTED LAND | ● or P |
| CROWN LAND SALE | C.S. |
| LEASES | L |
| LOCATED LAND | Loc. |
| 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. | |

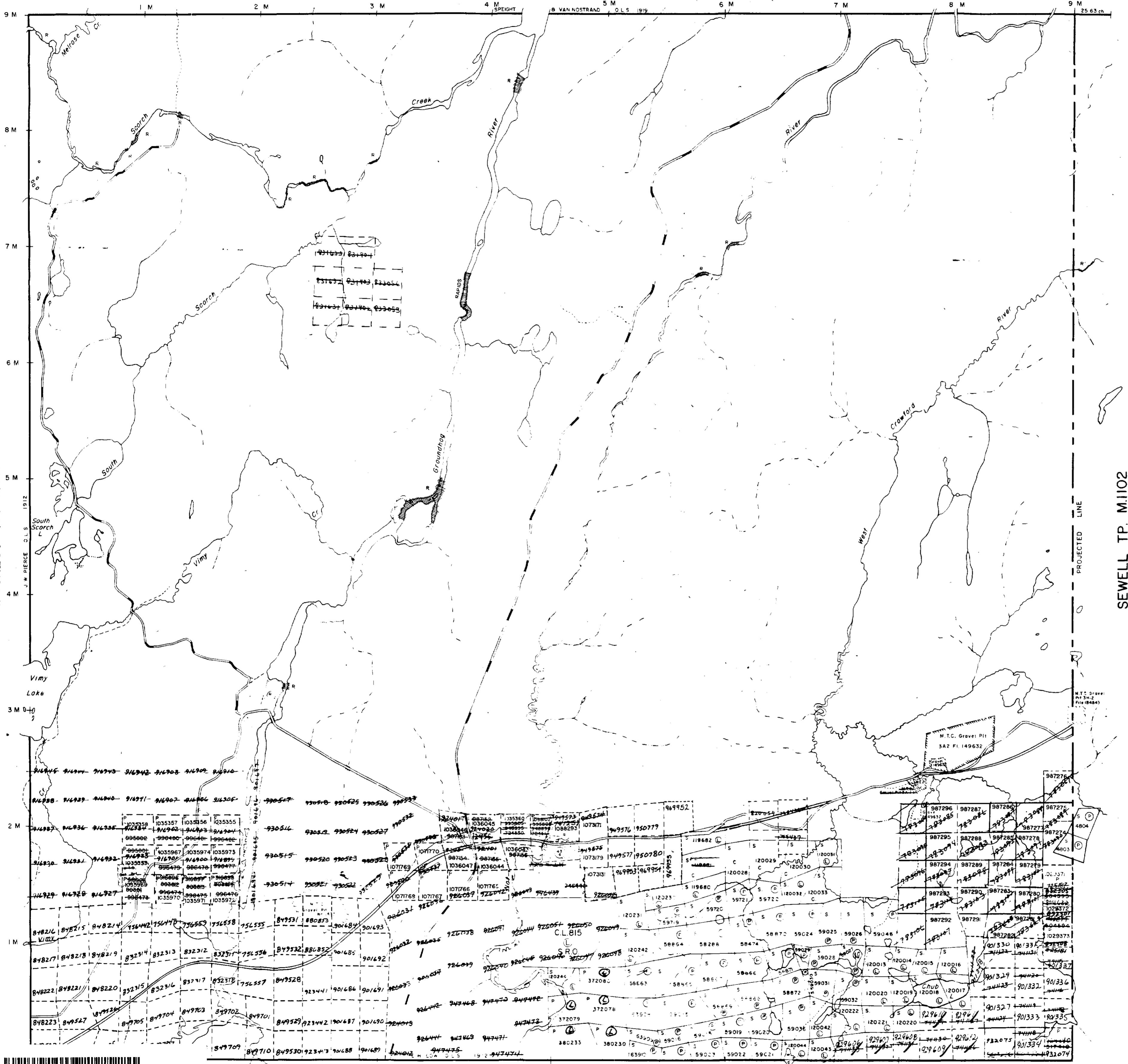
NOTES

400' surface rights reservation along the shores
of all lakes and rivers

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)			
Order No	File	Date	Disposition
43	163002	27-7-71	S R B M R

S.R.C. withdrawn from staking under Sec. 34(d) of
the Mining Act (R.S.C. 1960) File 63006

MUSKEGO TP. M.881



PENHORWOOD TP. M.1055

Rec. Feb. 11/80

ONTARIO

MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

