REPORT on MAGNETOMETER SURVEY
on the
Reeves Joint Venture Property
of
GLEN AUDEN RESOURCES LIMITED
and
GOLDROCK RESOURCES INC.

by
Ron Burk, M.Sc.Eng.
August 8, 1988

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SUMMARY

A ground magnetometer survey has been carried out on the Reeves Joint Venture property of Glen Auden Resources Limited and Goldrock Resources Inc., located in Reeves, Sewell, Penhorwood and Kenogaming Townships, Porcupine Mining Division, Ontario. Approximately 86 kilometers of cut grid lines were surveyed.

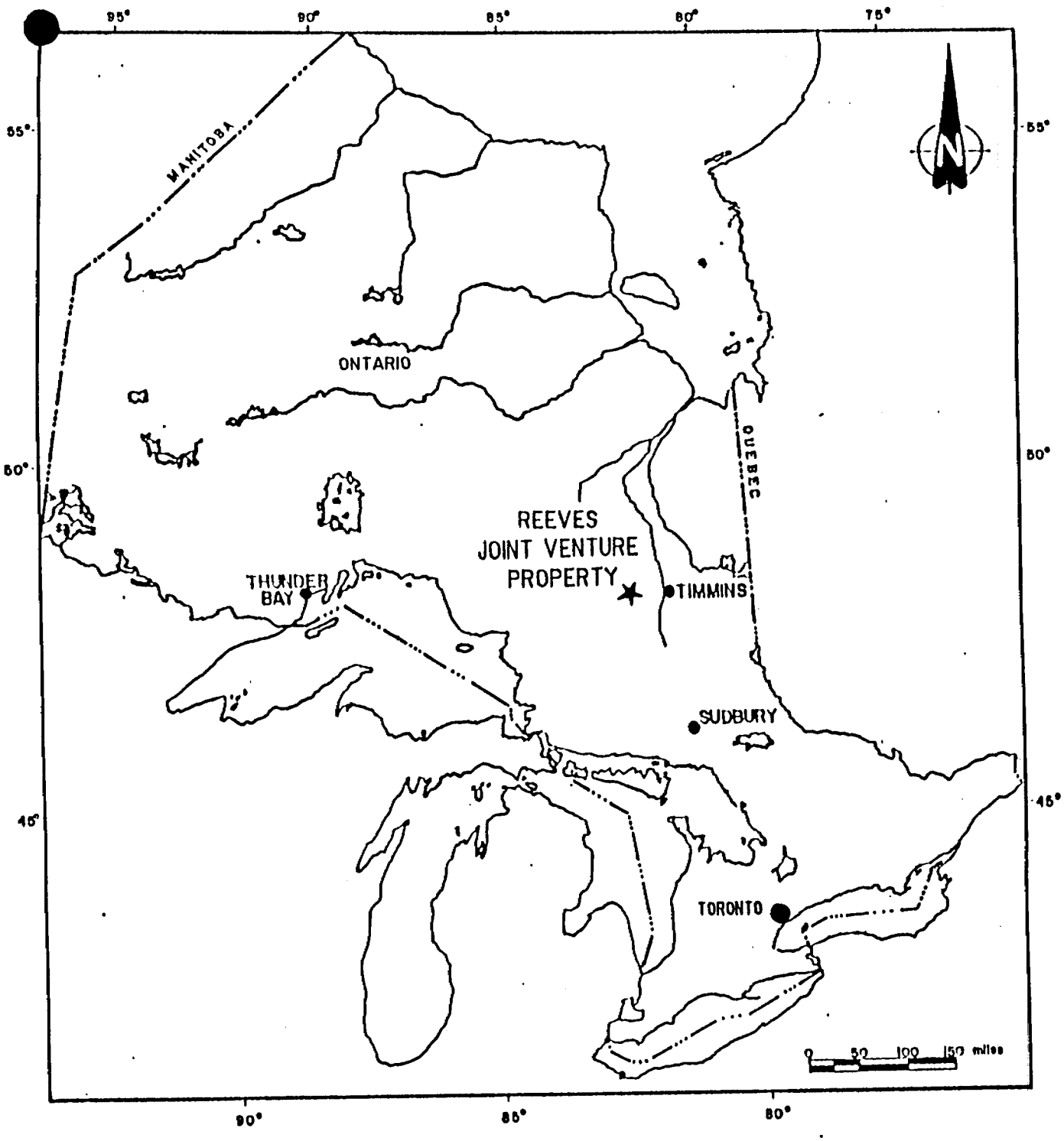
Magnetic contour patterns indicate the grid is underlain predominantly by a southwesterly to westerly striking sequence of mafic to intermediate volcanics. Greater structural complexity appears to be the case in Sewell Township where a south-verging regional fold is defined. A number of linear deformation zones previously interpreted to occur on the gridded portion of the property are only vaguely delineated by the magnetics data.

INTRODUCTION

An integrated gold exploration program was begun in May, 1987 on the 427-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. Early in 1988, a ground magnetometer survey was completed on 57 of the claims. This report presents the results of this survey along with interpretatons 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.



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

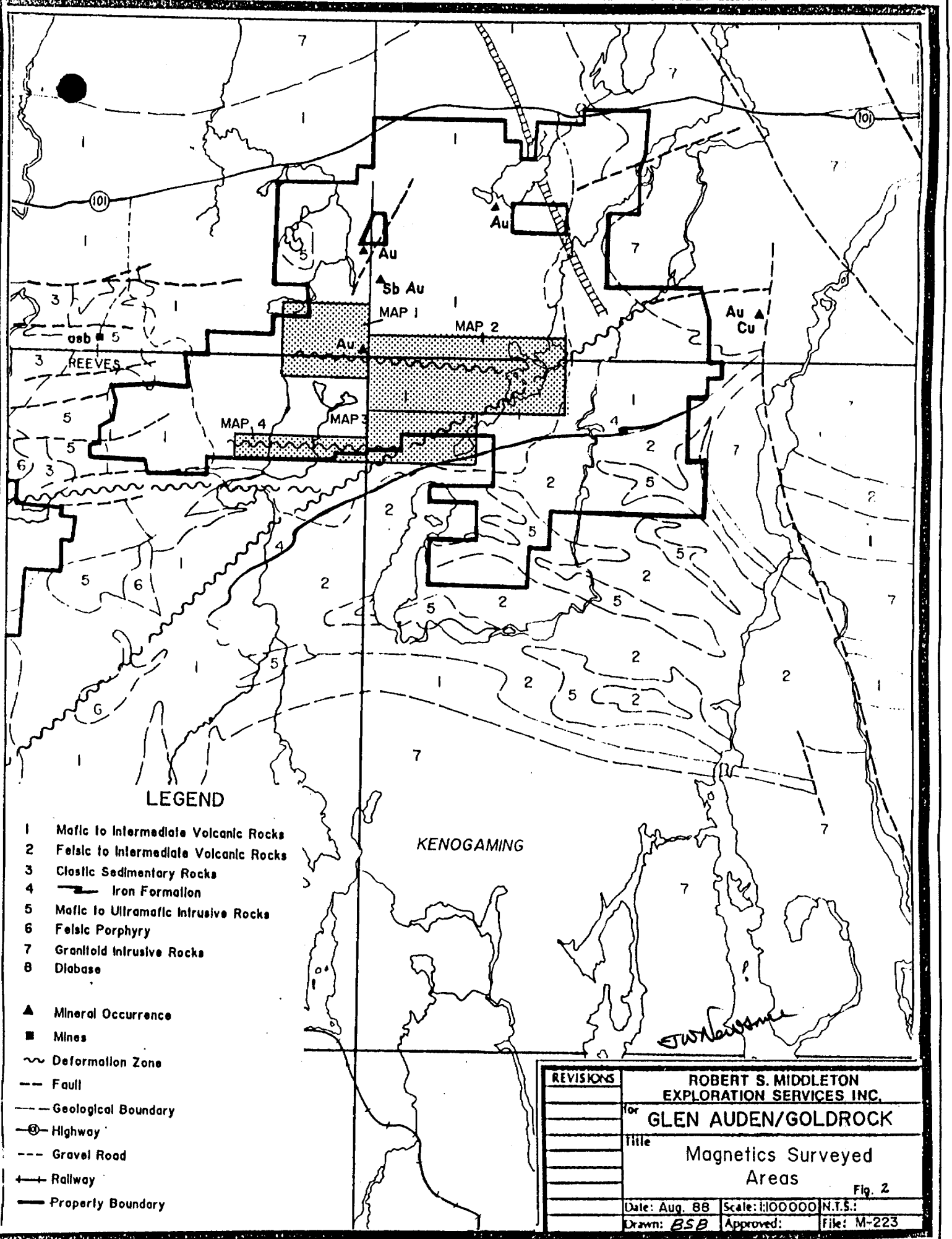
TOPOOGRAPHY AND VEGETATION

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 eskers, sand hills and boulder tills form some of the more prominent topographic features on the property.

Removed by logging, much of the original coniferous and mixed forest cover has been 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 outcrops 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, 1987A). Exposures of sedimentary rocks are sparse on the property, though 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



REVISIONS	ROBERT S. MIDDLETON EXPLORATION SERVICES INC.		
	for GLEN AUDEN/GOLDROCK		
	Title Magnetics Surveyed Areas		Fig. 2
	Date: Aug. 88	Scale: 1:100000	N.T.S.:
	Drawn: BSB	Approved:	File: M-223

western and southeastern parts of the claim group.

ECONOMIC GEOLOGY

The magnetometer survey covers claim 932074 in the southeast corner of Reeves Township where, in 1935, Erie Canadian Mines exposed well foliated, carbonatized and sericitized mafic to intermediate volcanic rock. The sheared and altered rock locally contains narrow quartz veins with minor amounts of disseminated pyrite in the enclosing schist. Black, pyritic quartz rubble apparently containing visible gold and assaying 0.14 ounces gold per ton was collected from one of these trenches. Milne (1972) reports that in 1946 Kalbrook Mining diamond drilled 13 holes in the vicinity of the "float" trench. Evidently no economic mineralization was encountered, although drill logs are not available. There are no other reported mineral occurrences in the area covered by the ground magnetometer survey.

PREVIOUS WORK

The most recent government geologic mapping of the property area was done by Milne (1972). At the request of the present claim holders, D. Pyke (1987) carried out a reconnaissance mapping and lithogeochemical study of the property area. He concluded that the supracrustal sequences in the northern part of the Swayze greenstone belt are similar, texturally and

compositionally to the volcanic units of the Timmins mining camp, and therefore constitute a favourable geological environment for gold mineralization. The geology of the original 267 claims of the RJV property was mapped in the 1987 field season and is described by Burk (1987A). The magnetometer survey discussed in this report was done within the limits of this claim block. The most important previous geophysical work done in the property area is an airborne magnetics-EM survey (Dighem, 1984) which covers an area that encompasses all of the presently-held claims.

In addition to the geologic mapping that was done on the original RJV property, Glen Auden Resources/Goldrock Resources carried out mechanical outcrop stripping and trenching in the southeast corner of Reeves Township, eastern Penhorwood Township, and just west of Deerfoot Lake in Kenogaming Township (Garner, 1987). Two series of overburden pits were also excavated and sampled in these areas (Garner, 1987). The ground magnetometer survey reported on here covers these workings. A more comprehensive review of exploration work done on the Reeves Joint Venture property by Glen Auden/Goldrock as well as previous mining companies is given by Burk (1987A).

PURPOSE OF THE SURVEY

Geologic mapping on the RJV property, together with the Dighem airborne geophysical data, has identified a number of linear, high strain, alteration zones which are considered prospective targets for gold mineralization. One zone is interpreted to extend west-northwestwards from Deerfoot Lake to the four contiguous township corners, and hosts the sheared and altered rock examined by Erie Canadian Mines and Kalbrook Mining (Figure 2). Another zone trends east-west close to the southern property boundary in claims 947253, 947150 and 947149, and is marked by a talc and, locally, fuchsitic schist (Figure 2). A less well defined, but potentially major deformation zone strikes southwestwards through the southern half of Deerfoot Lake (Figure 2). This zone has been suggested to be the western extension of the Porcupine-Destor Fault (Pyke, 1987; Burk, 1987A). For the ground magnetics survey, the grid was designed to cover these interpreted structural zones. It is proposed that detailed magnetics data will assist in delineating rocks with strong carbonate alteration (low magnetic responses) which tend to mark the shear/fault zones. Volcanic units with appreciable magnetite contents and banded oxide facies iron formations will also be outlined, thus adding to the understanding of the stratigraphic/structural setting on the property.

SURVEY STATISTICS AND METHOD

A total of 86.25 kilometers of line were cut and chained on 57 claims (see Schedule A). Line-cutting began December 01, 1987, and the survey was completed January 18, 1988. The base-line on the grid follows the Reeves-Penhorwood and Sewell-Kenogaming township boundaries. North-south oriented lines are spaced 100 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 Magnetic Survey

878419
893527
893528
893529
901327
901328
901329
901334
921399
921400
929609
929610
929611
929612
932074
932075
933528
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933562
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933564
933565
933566
933567
933568
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933571
933572
933573
933574
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933576
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947089
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947150
947253
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987258

INTERPRETATION

The magnetics data is presented as four maps of contoured total magnetic field readings. The portions of the grid covered by the individual maps are shown in Figure 2.

Total field readings measured on the grid are generally between 58,200 and 59,000 gammas, but range up to 65,500 gammas.

The contoured maps clearly show marked changes in the total field which reflect varying magnetic susceptibilities of the rocks on the grid, but also outline areas of shallow or no overburden as is the case on Map 1, between lines 3+00W and 8+00W, 1+00S and 3+00N.

MAP 1 - The pattern of contour lines at the south end of the map sheet (3+00S, between lines 5+00W and 15+00W) and at about 3+00N between lines 12+00W and 16+00W define an easterly striking sequence of mafic to intermediate volcanics. Contour patterns for the northwest part of the grid suggest a more northerly trending stratigraphy, where small magnetic 'highs' possibly represent lenses of iron formation. A northerly oriented body of moderate magnetic susceptibility located south of the base line at about 1+00W is interpreted to be a mafic intrusive, probably a dike, which interestingly terminates at the base line where a west-northwest trending deformation zone is proposed to pass.

MAP 2 - A narrow unit of very high magnetic susceptibility, in all probability a banded magnetite iron formation, strikes in a southwest direction from Line 30+00E/ 9+00S to Line 22+00E/12+00S. Trending roughly parallel to the iron formation, between Deerfoot Lake and Line 9+00E/11+00S, is another magnetic unit which can be used as a stratigraphic marker. One of the more prominent magnetic features outlined by the survey is a broad, crescent-shaped zone of moderate magnetic susceptibility in the area between lines 14+00E, 28+00E, 4+00N and 4+00S. This feature is also outlined by the Dighem airborne survey data, where it takes the form of a major U-shaped fold. Outcrops of banded iron formation have been mapped at the southern end, or nose, of the apparent fold.

MAP 3 - The west-southwesterly striking highly magnetic unit (readings up to 65,500 gammas) which extends between lines 7+00E and 17+00E, about 22+00S, has been identified as the Nat River banded oxide and sulfide facies iron formation. An egg-shaped body of moderately to strongly magnetic rock is centred at

12+50E/18+50S. According to Milne (1972) this feature marks a feldspar and quartz porphyritic intrusion which apparently contains a large xenolith of magnetite iron formation. In general, the contour patterns of this map sheet reflect a supracrustal sequence which strikes at about 060 degrees.

MAP 4 - Magnetic contours for the southwest part of the grid suggest a relatively complex geology. The most evident feature is a narrow, moderately magnetic unit which strikes northwesterly between lines 8+00W and 13+00W, and then strikes discontinuously in a southwest direction to the western edge of the grid (line 25+00W). Outcrops of highly carbonatized, talcose, and locally fuchsitic ultramafic rock have been mapped at the eastern end of this magnetic feature. A north-northeasterly trending magnetic "high" occurring between lines 15+00W and 17+00W is probably marking a diabase dike.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey on the property of Glen Auden Resources and Goldrock Resources has added considerably to the understanding of the geology on the claims. The magnetics data have established a southwesterly striking greenstone sequence in Kenogaming Township southwest of Deerfoot Lake where field mapping located very few outcrops. A unit of banded iron formation, not shown on the government survey map, is also identified south of Deerfoot Lake. In Penhorwood and Reeves Townships volcanic units tend to strike more easterly, while in Sewell Township there is evidence of a major south-verging fold as defined by a thin, and probably discontinuous iron formation. Small mafic intrusions and a magnetically susceptible intermediate to felsic porphyry body have also been identified in

the gridded area.

The deformation/alteration zones which are proposed to occur on the surveyed portion of the property are not clearly delineated magnetically, although zones of low magnetic responses do tend to correspond with the interpreted structures.

The high magnetic susceptibility shown by the porphyritic intrusion west of Benbow Lake is unusual and warrants further investigation. Disseminated magnetite in the intrusion may be an alteration product of hydrothermal activity.

The geology of the property, as it is presently defined, is favourable for the occurrence of a typical Archean greenstone-hosted gold deposit, one which occurs in a high strain deformation zone marked by pyritic, chlorite $\pm$ sericite + carbonate schists. Such rocks, at the mine scale, are geophysically represented by zones of relatively low magnetic susceptibility which correspond with zones of moderate to high resistivity and chargeability as determined by the induced polarization survey method. Having completed a magnetics survey, it is recommended that an induced polarization survey be conducted on sections of the same grid. Fairly complete coverage of the grid area could be done by surveying approximately 40 kilometers of grid line.

Respectfully submitted

Ron Burk, M.Sc.Eng.

For R. Burk
F.W. Dawson PhD
Exploration Manager

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 4 years.

4. I have no economic interests in the property covered by this report.

Dated this August 8, 1988
TIMMINS, Ontario

Ron Burk 2.10291

For R. Burk
F.W. Newton PhD
Exploration Manager

2wd
2.8733

APPENDIX A

MAGNETICS THEORY

The magnetic method is based on measuring alteration in the shape and magnitude of the earth's naturally ocurring magnetic field caused by changes in the magnetization of the rocks in the earth.

These changes in magnetization are due mainly to the presence of the magnetic minerals, of which the most common is magnetite, and to a lesser extent ilmenite, pyrrhotite, and some less common minerals.

Magnetic anomalies in the earth's field are caused by changes in two types of magnetization: induced and remanent (permanent). Induced magnetization is caused by the magnetic field being altered and enhanced by increases in the magnetic susceptibility of the rocks, which is a function of the concentration of the magnetic minerals.

Remanent magnetism is independant of the earth's magnetic field, and is the permanent magnetization of the magnetic particles (magnetite, etc.) in the rock. This is created when these particles orient themselves parallel to the ambient field when cooling. This magnetization may not be in the same direction as the present earth's field, due to changes in the orientation of the rock or the field.

The most common method of measuring the total magnetic field

in ground exploration is with a proton precession magnetometer. This device measures the effect of the magnetic field on the magnetic dipole of hydrogen protons. This dipole is caused by the "spin" of the proton, and in a magnetometer these dipoles in a sample of hydrogen-rich fluid are oriented parallel to a magnetic field applied by an electric coil surrounding the sample. After this magnetic field is removed, the dipoles begin to precess (wobble) around their orientation under the influence of the ambient earth's magnetic field. The frequency of this precession is proportional to the earth's magnetic field intensity.

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMI W880

8806.25L

Minir

42A04NW0013 2.11646 REEVES

900

Do not use shaded areas below.

Type of Survey(s)
MAGNETOMETER SURVEY **2.11646**

Township or Area
SEWELL. KENOGAMING PENHORWOOD, REEVES

Claim Holder(s)
GLEN AUDEN RESOURCES LTD and GOLDROCK RESOURCES.

Prospector's Licence No.
T-1915/T-4715

Address
P.O. BOX 1637, TIMMINS, ONTARIO P4N 7C2.

Survey Company
R.S. Middleton Exploration Services Inc.

Date of Survey (from & to)
Day 01 Mo. 12 Yr. 87 — Day 12 Mo. 01 Yr. 88

Total ~~Miles~~ kms. of line Cut
86.25

Name and Address of Author (of Geo-Technical report)
R. BURK - P.O. Box 1637, Timmins Ontario P4N 7W8.

Credits Requested per Each Claim in Columns at right

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

RECEIVED
SEP 9 1988
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	SEE ATTACHED SCHEDULE 'A'	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

PORCUPINE MINING DIVISION
RECEIVED
JUL 28 1988

RECORDED
JUL 28 1988

Total number of mining claims covered by this report of work. 57

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.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
2280	July 28/88	D. White
	Date Approved as Recorded	Branch Director
	Please See Remind Statement.	

Date	Recorded Holder or Agent (Signature)
July 28/88	[illegible]

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
J. [illegible] P.O. Box 1637 Timmins Ontario P4N 7W8

Date Certified	Certified by (Signature)
July 28/88	[signature]

SCHEDULE A
KENOGAMING, PENHORWOOD
REEVES AND SEWELL
TOWNSHIPS

PORCUPINE MINING DIVISION

878419
893527
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Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

November 30, 1988

Your file: W8806-251
Our file: 2.11646

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

Dear Sir:

Re: Amended Notice of Intent dated November 15, 1988 - Geophysical (Magnetometer) Survey submitted on Mining Claims P 878419 et al in the Townships of Sewell, Kenogaming, Penhorwood and Reeves

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
RM
RM:pl
Enclosure

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

Glen Auden Resources Ltd. and
Goldrock Resources
P.O. Box 1637
Timmins, Ontario
P4N 7C2
Attn: Mr. J. Newsome

Resident Geologist
Timmins, Ontario

R.S. Middleton Exploration Services Inc.
P.O. Box 1637
Timmins, Ontario
P4N 7W8
Attn: Mr. R. Burk

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File 2.11646

Date November 15, 1988

Mining Recorder's Report of Work No. W8806-251

AMENDED

Recorded Holder
GLEN AUDEN RESOURCES/GOLDROCK RESOURCES

Township or Area
SEWELL, KENOGAMING, PENHORWOOD, REEVES

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	P 878419
Magnetometer 40 days	893527 to 529 incl.
Radiometric _____ days	901327 to 329 incl.
Induced polarization _____ days	901334
Other _____ days	921399-400
Section 77 (19) See "Mining Claims Assessed" column	929609
Geological _____ days	929611-612
Geochemical _____ days	932074-075
Man days ☐ Airborne ☐	933528
Special provision ☒ Ground ☒	933545
☐ Credits have been reduced because of partial coverage of claims.	933562 to 565 incl.
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	933567
	933569
	933571 to 576 incl.
	944882
	944889-890
	944897-898
	944900
	944905
	944911
	947089
	947131
	947149-150
	947253
	947257-258
	947265-266
	987252 to 258 incl.

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

20 DAYS MAGNETOMETER

P 933566
933568
933570

No credits have been allowed for the following mining claims

☒ not sufficiently covered by the survey ☐ insufficient technical data filed

P 929610

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; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

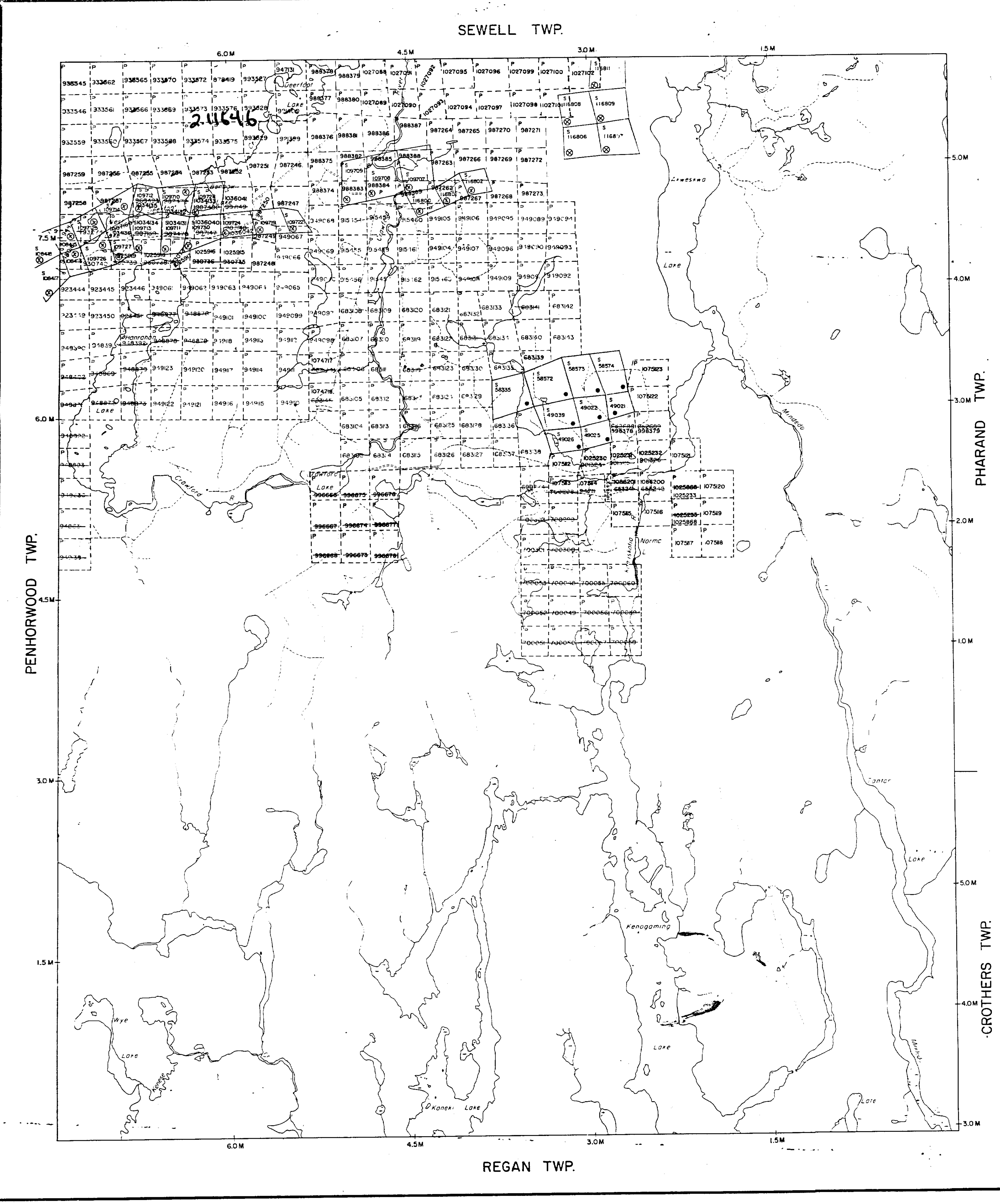
828 (65/12)

REFERENCE

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



LEGEND

HIGHWAY AND ROUTE No
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	⬒
" , MINING RIGHTS ONLY	⬓
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	®
CANCELLED	⊗
SAND & GRAVEL	Ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913 VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

KENOGAMING

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY

Ministry of Natural Resources
Ontario
Land Management Branch

Date APRIL 1985
Number G-3239

200

REFERENCE

AREAS WITHDRAWN FROM DISPOSITION

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

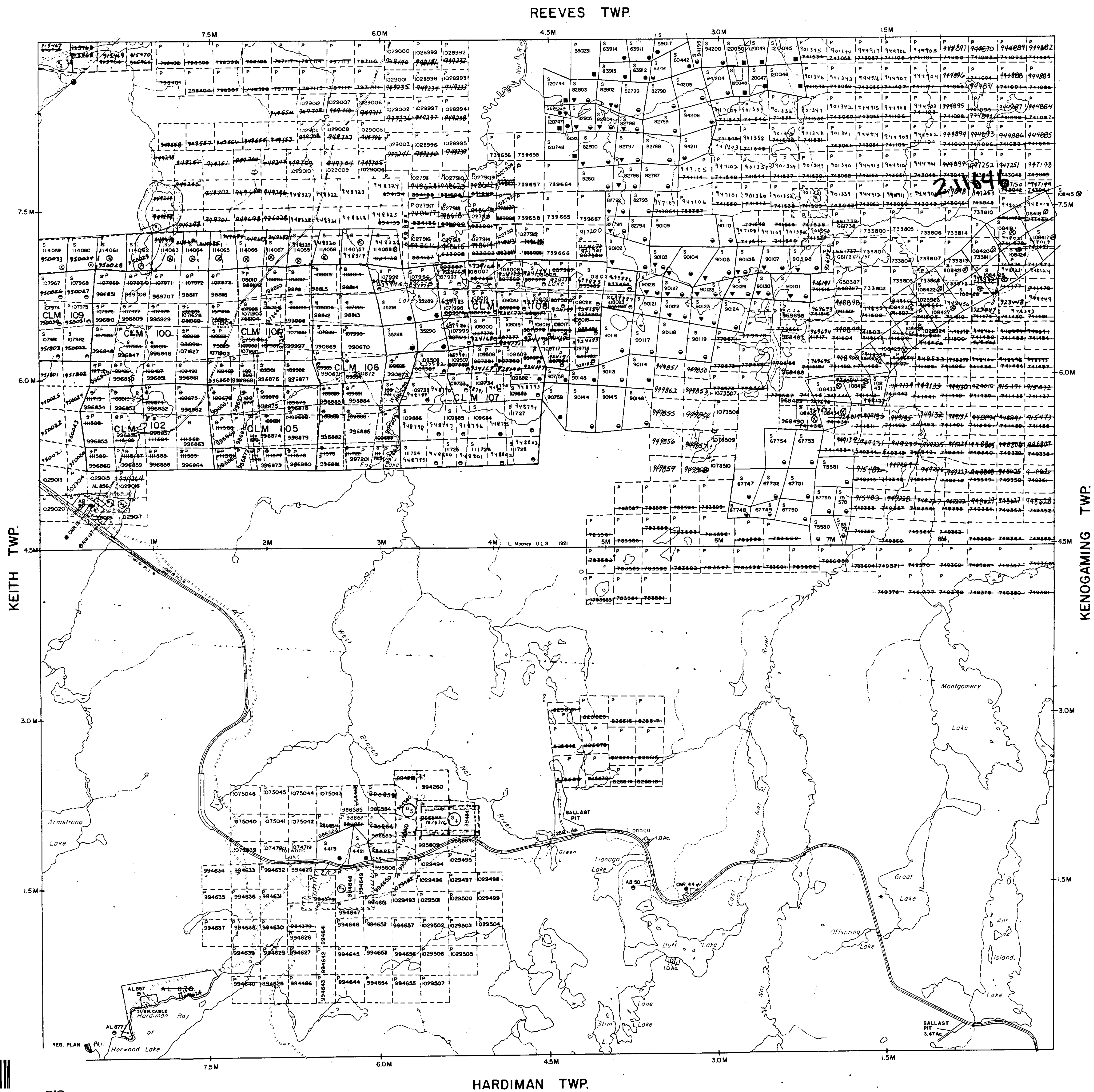
	Description	Order No.	Date	Disposition	File
(R1)	400' RESERVE			S.R.O.	135537
(R2)	SEC. 43/70	W.91/72	27/12/72	S.R.O.	163006 V.2
(R3)	SEC. 36/80		11/7/81	S.R.O.	135537
(R4)	ORDER OF THE MINISTER #33/87 DATED MARCH 30/87 WITHDRAWS MINING AND SURFACE RIGHTS UNDER SECTION 36 OF THE MINING ACT, RSO 1980				

SAND AND GRAVEL

(S1)	GRAVEL	FILE	38729
(S2)	GRAVEL PIT	FILE	13555 V.6
(S3)	GRAVEL	FILE	106274
(S4)	QUARRY PERMIT # 22805 ISSUED FOR THE REMOVAL OF QUARTZ JULY 1, 1987		
(S5)	QUARRY PERMIT # 22808 ISSUED FOR THE REMOVAL OF QUARTZ SEPT 10, 1987.		

NOTES

FLOODING RIGHTS ON HORWOOD LAKE RESERVED TO ONTARIO HYDRO TO CONTOUR ELEVATION 1177' ... O. 7746



LEGEND

HIGHWAY AND ROUTE No.	
OTHER ROADS	
TRAILS	
SURVEYED LINES:	
TOWNSHIPS, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	⚒
TRAVERSE MONUMENT	⌖

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	⬒
" , MINING RIGHTS ONLY	⬓
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	Ⓡ
CANCELLED	⊗
SAND & GRAVEL	ⓢ
LAND USE PERMIT	*

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

PENHORWOOD

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ontario — Ministry of Natural Resources — Land Management Branch

Date: MARCH 1985

Number: G-3244

Checked June 14/85

42A04NW0013 2.11646 REEVES

210

REFERENCES

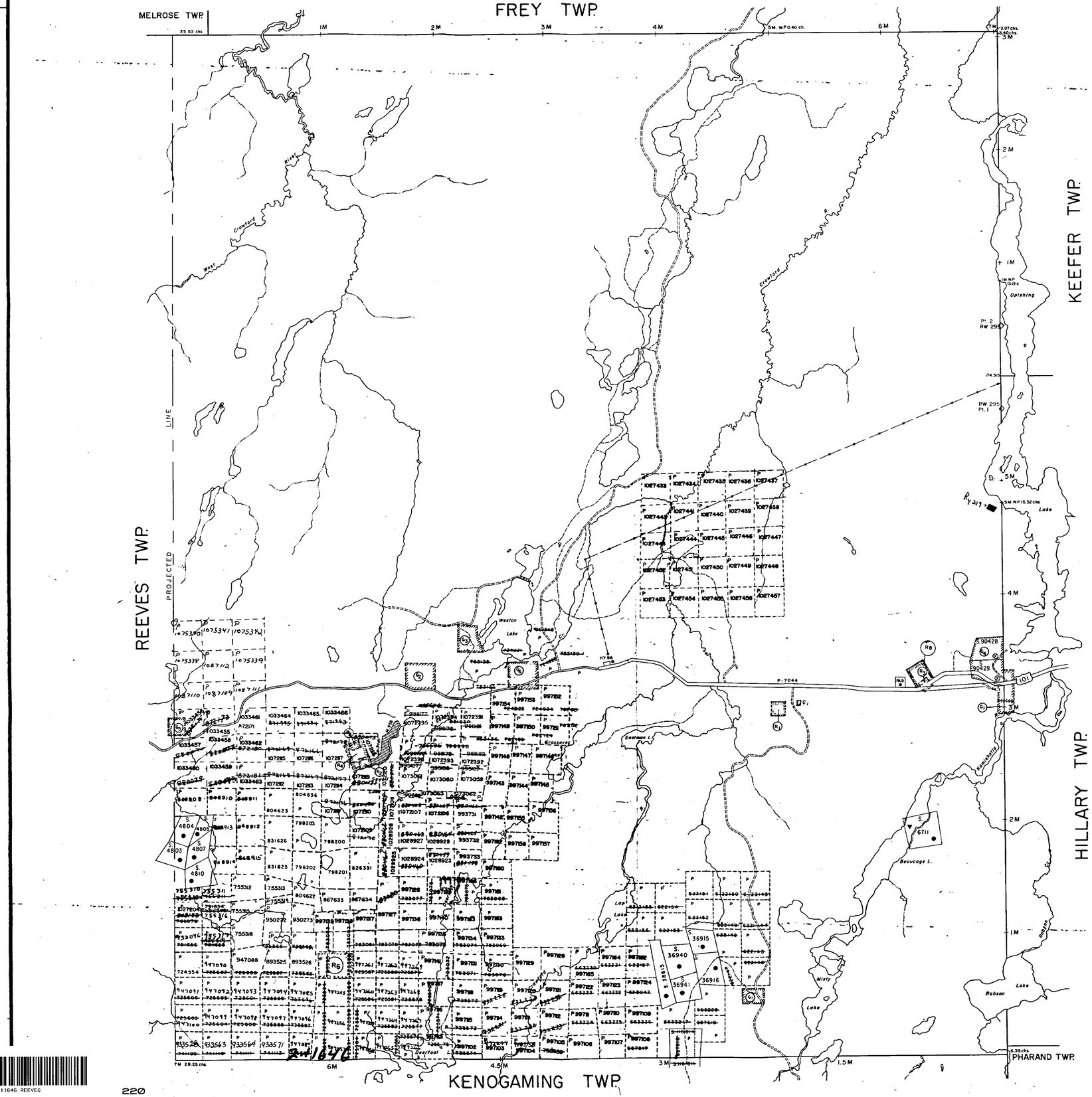
AREAS WITHDRAWN FROM DISPOSITION

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

	Description	Order No.	Date	Disposition	File
R_1	SEC. 43/70	W. 30/77	11/3/77	S.R.O.	135748
R_2	SEC. 43/70	W. 19/78	10/4/78	S.R.O. + M.R.O.	188543
R_3	SEC. 43/70	W. 10/78	14/11/78	S.R.O.	135748
R_4	DUMP ATTENUATION ZONE				
R_5	SEC. 36/80	W. 46/83	14/8/83	M. + S.	
R_6	Not open for staking AWAITING INSPECTION 71/86				
R_7	"FILED ONLY" D-26/86				
R_8	NOT OPEN FOR STAKING - BONA FIDE APPLICATION UNDER PUBLIC LANDS ACT PENDING 21/01/87				

SAND AND GRAVEL

G_1	GRAVEL	FILE	135748	
G_2	M.T.C	PIT	1577	
G_3	M.T.C	PIT	3H-1	FILE 135748
G_4	M.T.C	PIT	1576	
G_5	M.T.C.	PIT	3H-2	FILE 184702
G_6	M.T.C	PIT	1243	



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◧
" , MINING RIGHTS ONLY	◧
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	(R)
CANCELLED	⊗
SAND & GRAVEL	(G)

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 2000 (1 KM) (2 KM)

TOWNSHIP
SEWELL

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY

RECEIVED SEP 26 1988 LAND TITLES/REGISTRY DIVISION

Ontario Ministry of Natural Resources — Land Management Branch

Date MARCH, 1985

Number G-3247

42A04NW8013 2.11646 REEVES

MELROSE TP. M.861

MUSKEGO TP. M.881

SEWELL TP. M.1102

PENHORWOOD TP. M.1055

THE TOWNSHIP OF REEVES

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

SEP 2 1980

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	C
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)	63003	27/7/72	S.R & M.R.

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

Rec. Feb 11/80

PLAN NO. M.1074

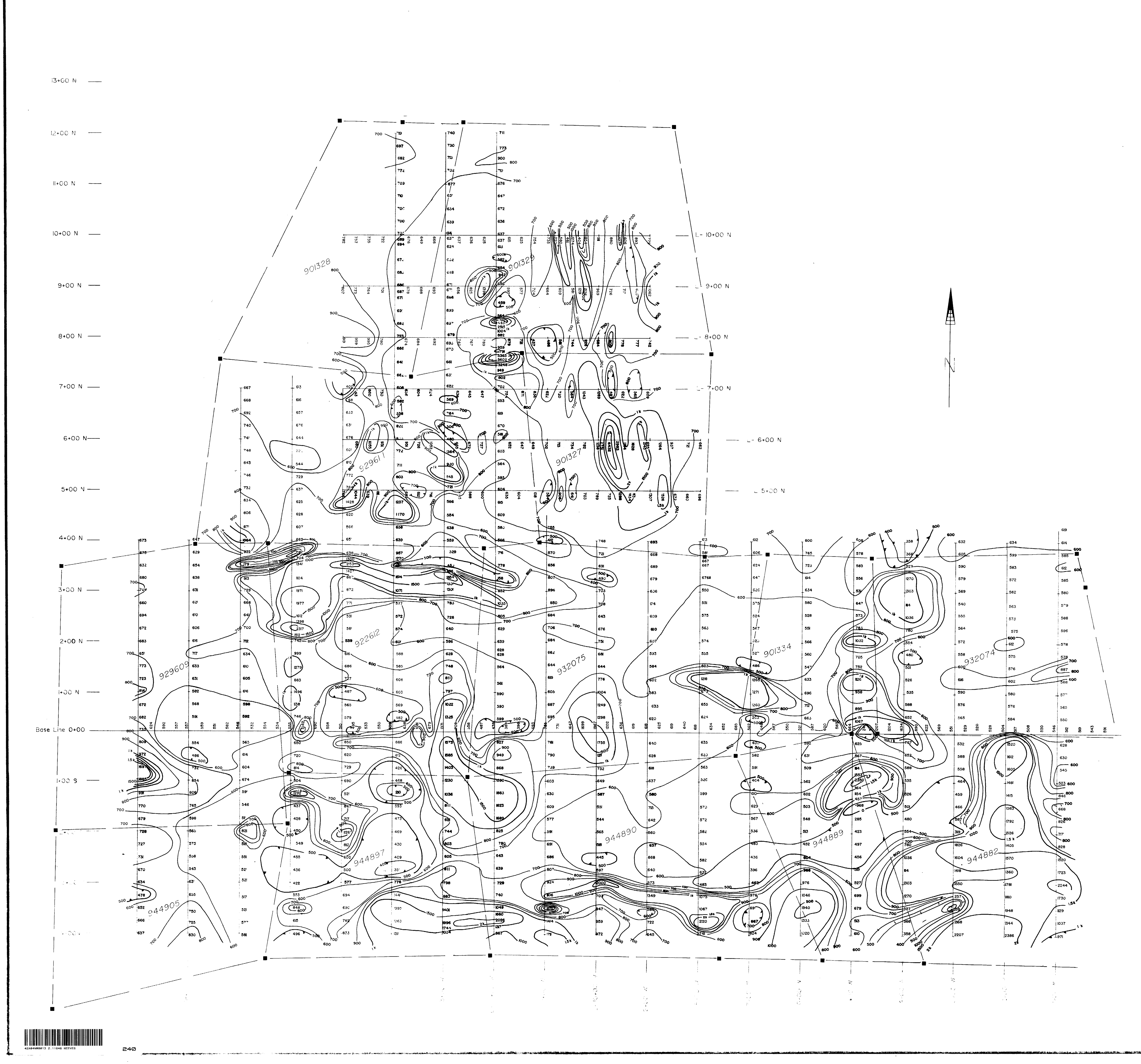
ONTARIO

MINISTRY OF NATURAL RESOURCES

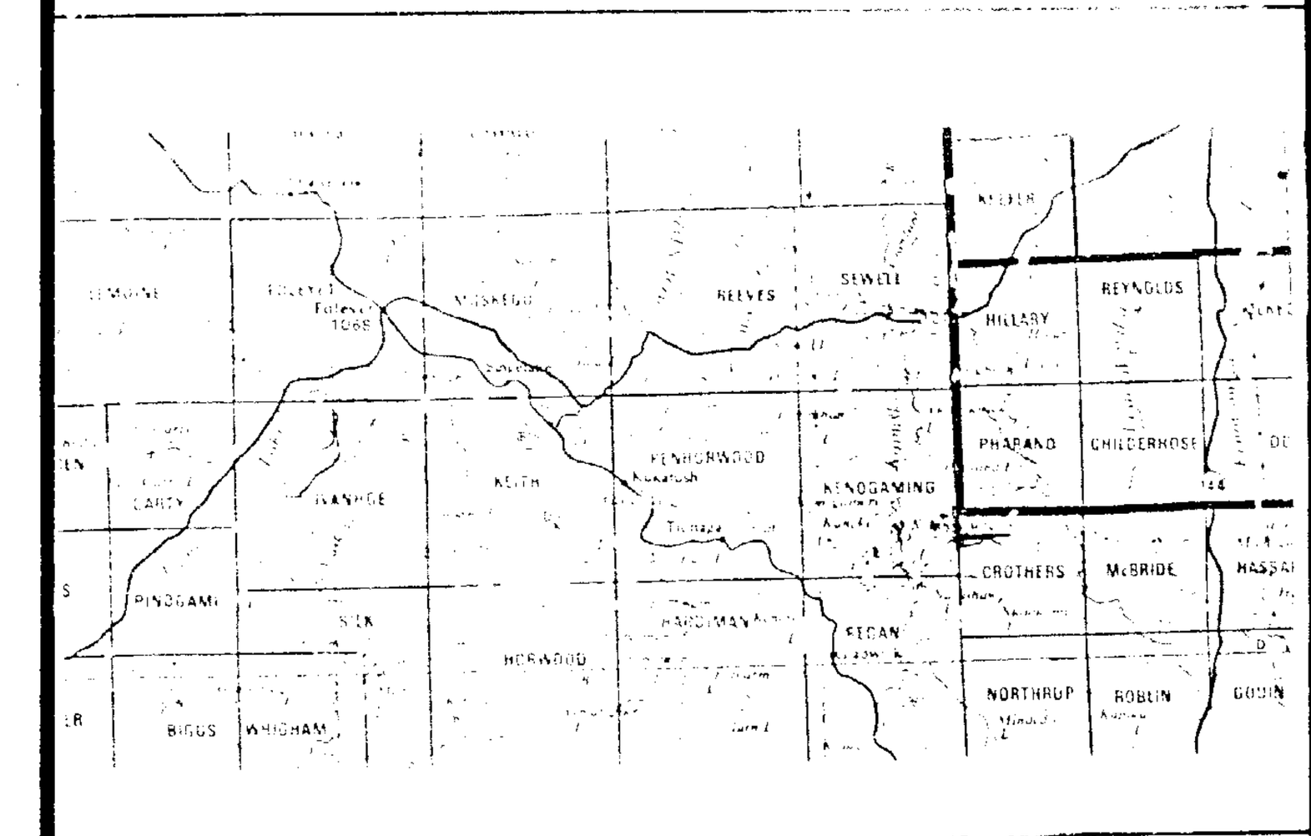
SURVEYS AND MAPPING BRANCH

42A04NW0013 2.11646 REEVES

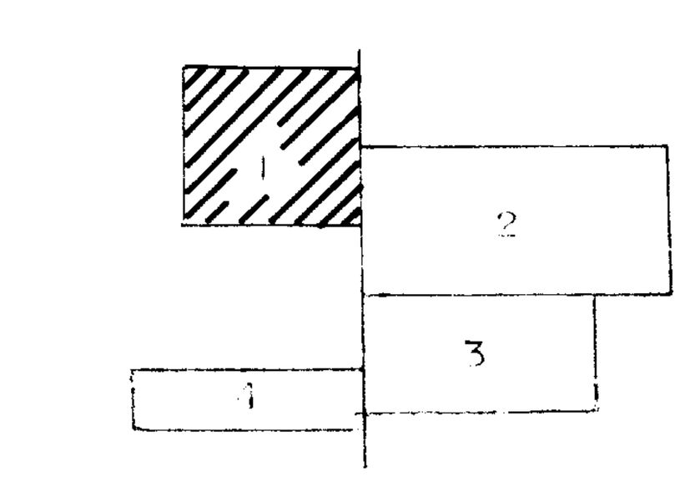
230



LOCATION MAP



SHEET PLAN



HORIZONTAL SCALE 1:2500

Meters 0 25 50 75 100 M.

TOPOGRAPHIC

- Trail portage
- Bush road
- Gravel road, highway
- Railroad
- Claim post located
- Claim post assumed location
- Witness post
- Creek, River
- Lake shore
- Swamp, Bog
- Property boundry line

MAGNETIC SURVEY

Add 58,000 Gammas to all readings for total field values

1000 / 100 — Contours — Contour interval: 100 Gammas

Depression contour

▲ Base Station Location: Tie Line 4+00 S/ L-17 E

Sheet 1

ROBERT S. MIDDLETON
EXPLORATION SERVICES INC.

GLEN AUDEN RESOURCES INC

SEWELL TWP PROPERTY

Survey by: Thibault Exploration Services

Operators: D-Crowley

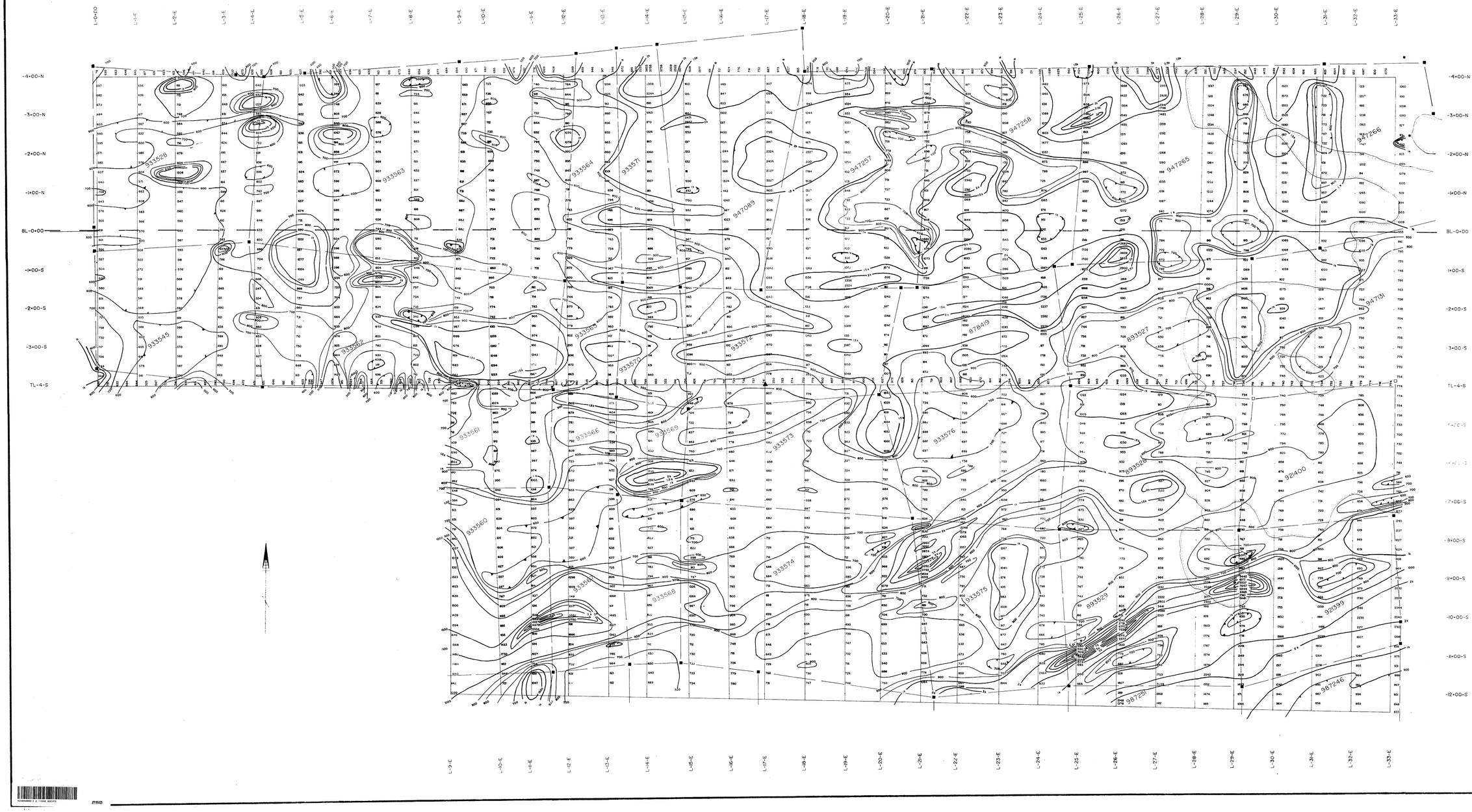
Instrument: Geometrics G-816 Proton Magnetometer

M-CARON &D-BELISLE

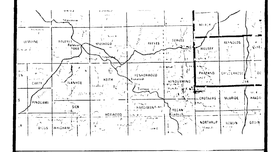
Date of Survey: FEBUARY 1988

PROJECT 223

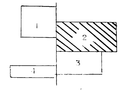
240



LOCATION MAP



SHEET PLAN



HORIZONTAL SCALE 1:2500

TOPOGRAPHIC

- Trail portage
- Bush road
- Gravel truck road, highway
- Rail road
- Claim post located
- Claim post assumed location
- Witness post
- Creek, River
- Lake shore
- Swamp, Bog
- Property boundry line

MAGNETIC SURVEY

Add 58,000 gammas to all readings for total field values

Contours — Contour Intervals: 100 Gammas

Depression

Base Station Location: Tie Line 4+00 S / L-17 E

slatz

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

GLEN AUDEN RESOURCES INC

SEWELL TWP PROPERTY

Survey by: Guy Thibault Exploration Services

Operators: D-Crowley

Instrument: Geometrics G-816 Proton Magnetometer

Date of Survey: FEBRUARY 1988

Plotted by: M-Carou & D-Belisle

PROJECT 223


987259
987258
987257
987256
987255
987254
987253
987252
987160
987159
987478
987479
987480
987149
987148
947147
988491
Tie Line 12+00 S
Tie Line 20+00 S
Tie Line 24+00 S
KENOGAMING TOWNSHIP
PENHORWOOD TOWNSHIP
SHEET PLAN
HORIZONTAL SCALE 1:2500
TOPOGRAPHIC
Trail portage
Bush road
Road
Rail road
Claim post located
Claim post assumed location
Witness post
Creek, River
Lake shore
Swamp, Bog
Property boundary line
MAGNETIC SURVEY
Contours
Contour interval: 100 Gammas
Depression
Base Station Location: Tie Line 4+00 S / L-17 E
2.11016
Sheet 3

ROBERT S. MIDDLETON
EXPLORATION SERVICES INC.

GLEN AUDEN RESOURCES INC

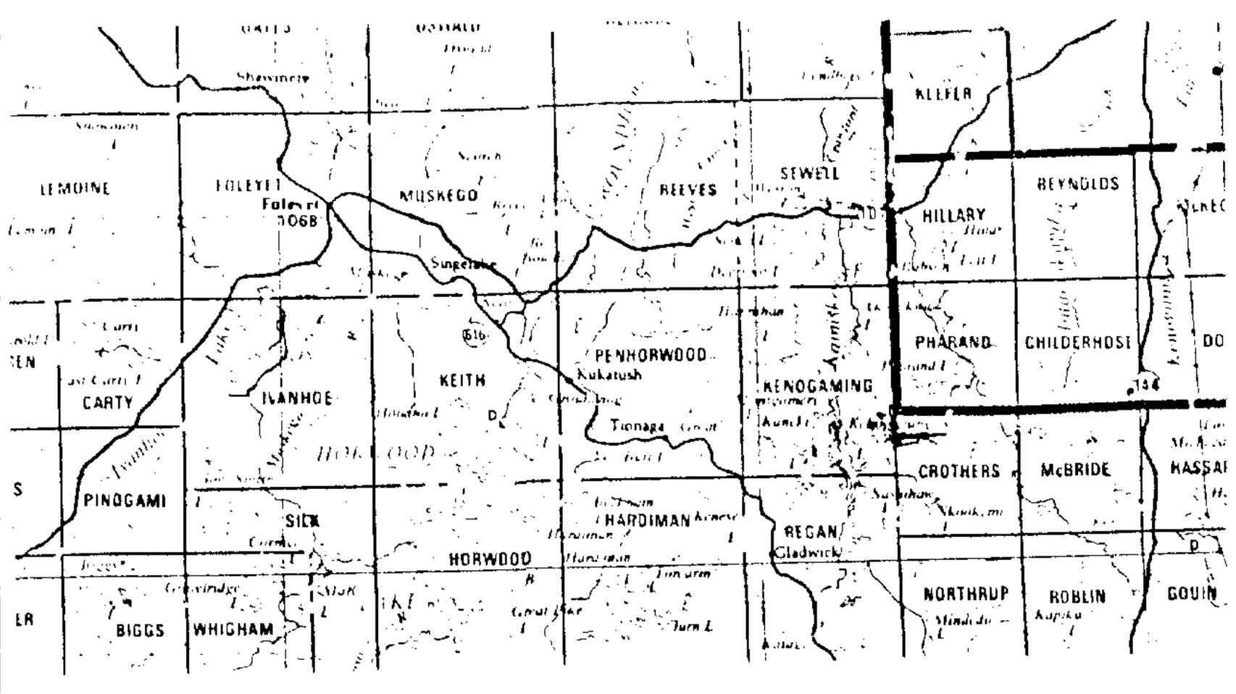
SEWELL TWP PROPERTY

Survey by: Guy Thibault Exploration Services
Operators: D-Crowley

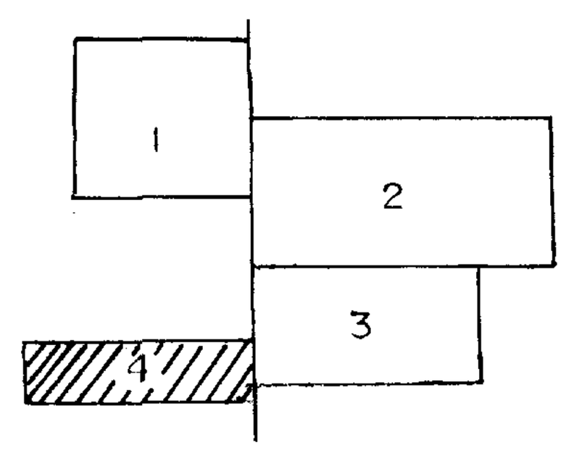
Instrument	Date of Survey
Geometrics G-816 Proton Magnetometer	FEBUARY 1988
M-Caron & D-Belisle	PROJECT 223

260

LOCATION MAP



SHEET PLAN



HORIZONTAL SCALE 1:2500

100 Meters 0 25 50 75 100 M.

TOPOGRAPHIC

Trail portage
Bush road
Good driving road, Highway
Rail road
Claim post located
Claim post assumed location
Witness post
Creek, River
Lake shore
Swamp, Bog
Property boundry line

MAGNETIC SURVEY

Add 58,000 Gammas to all readings for total field values

1000 / 100 Contours

Contour intervals: 100 Gammas

Depression Contour

Base Station Location: Tie Line 4+00 S / L-17 E

2.11646

Sheet 4

ROBERT S. MIDDLETON
EXPLORATION SERVICES INC.

GLEN AUDEN RESOURCES INC

SEWELL TWP PROPERTY

Survey by: *Guy Thibault Exploration Services*
Operators: D-Crowley

Instrument: Geometrics G-816 Proton Magnetometer	Date of Survey: FEBUARY 1988
Drafting by: M-Caron & D-Belisle	PROJECT 223

270