



41009NW0032 2.470 MALLARD

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**REPORT ON
GEOPHYSICAL SURVEY
12-CLAIM GROUP PROPERTY**

**RECEIVED
JUN 25 1971
PROJECTS
SECTION**

PANACEA MINING & EXPLORATION LIMITED

**MALLARD TOWNSHIP
RUSH LAKE AREA
SUDBURY MINING DIVISION
ONTARIO**

June 18, 1971

CANA EXPLORATION CONSULTANTS LIMITED

**Panacea Mining & Exploration Limited,
Suite 405 - 87 Yonge Street,
Toronto 1, Ontario**

**Attention of Mr. S. Waisberg, P. Eng.
Consulting Geologist**

Gentlemen:

This report describes a program of geophysical survey carried out to cover your property located in Mallard Township, Rush Lake Area, Sudbury Mining Division, Ontario. The results are depicted on the accompanying plan plotted to a scale 1" = 200'.

PROPERTY, LOCATION AND ACCESS -

The property is comprised of the following 12 claims:

S-279395 to S-279400, inclusive, and S-279423 to S-279428, inclusive.

Claim Map M-849, O. D. M., showed that the claim group is located at the northeast part of Mallard Township, about one mile to the southwest of Rush Lake (also known as Sakalawi Lake). On the ground, it is about 1000 feet further to the west than indicated on said claim map. The group covers an area of about 3000 feet east-west and 5000 feet north-south.

Access was readily made by car via a gravel road from Chaplean to Sultan and by continuing through a private gravel road owned by Eddy Forest Products Limited to the southwest end of Rush Lake, about one mile to the east of the property.

GEOLOGY AND MINERAL OCCURRENCES -

General geology of the area is on Maps 3116 and P. 285, O. D. M. According to these maps, the property is located along a contact zone between Archean acid and basic intrusives with gabbro and diorite at its west boundary and granitoid rocks underlain on the rest of the property.

There is no detailed or outcrop geological map available. However, because of the fact that the property is within 3/4 of a mile from the neighbouring Marion Township, the detailed geological map (No. P. 136, O. D. M.) was used as reference for interpretation of the ground geophysical data. The said detailed geological map showed that the property is located to the immediate south of a 1 1/2 mile wide zone of granite-diorite complex with mainly dioritic rocks to the west, granite to the east.

The copper occurrences of Parr Mines, which aroused current interest in the area, is located about 2 1/2 miles to the northeast of your property at the northwest shore of Rush Lake and within granitic rocks. This property is under option to Northgate Exploration, who has now completed geophysical and geological surveys and is said to be expected to carry out a program of test diamond drilling within the next few weeks (Northern Miner, Page 11, June 10th, 1971).

There are many other minor occurrences of copper located within the large granite area near Rush Lake and within the granite-diorite complex. One of which is located on the property of Texore Mines Ltd., tying onto the northwest of your claim group.

The area is generally known for its gold occurrences, one of which is located about 2 miles to the south of your claim group.

AEROMAGNETIC DATA -

Maps 2261G and 2262G, G. S. C. -O. D. M., showed that an outstanding northwest-southeasterly magnetic zone is located to the immediate west of the property location. The centers of this magnetic zone lie along the west part of a mass of basic intrusive (gabbro and diorite) which is shown on the general geological maps of the area. The southwest part of your property is located on the northeast rim of said magnetic zone.

There is a small magnetic depression located about 1 mile to the northwest of your claim group in the vicinity of the Texore showing. There is another magnetic depression located about 1/2 mile to the east and another about 1 mile to the southeast. The last mentioned magnetic depression is inferred by the writer as located along a fault zone, which runs from Rae Lake toward your claim group and parallel to the Rush River fault located to the immediate west of Parr Mines (see Map 2116, O. D. M.).

SURVEY DATA -

A line grid, with picket lines spaced at 300 foot intervals, was cut and chained on the property by Jean Alix Co. Ltd. In all, 10.85 miles of base lines and picket lines, with 100 foot stations, was established on the property.

The magnetic survey was carried out by using a Fluxgate MF-1 magnetometer with base-check method. The electromagnetic survey was carried out by using an SE-200 unit with parallel line method as noted on the plan accompanying this report. In all, 9.77 miles of a combined magnetic and electromagnetic survey was carried out with topography and outcrop areas noted along the line grid.

SURVEY RESULTS AND INTERPRETATION -

The magnetic survey outlined several narrow and some elongated anomalies, most of which are striking northwesterly. The high readings are in the order of 1000 to 2350 gammas as compared with background readings in the order of 600 to 800 gammas. These are weak anomalies and could be accounted for by dioritic rocks intermixed with granite. Diabase dikes known in the area to the immediate north are as a rule striking more northerly, regardless of the structure of the country rocks.

The magnetic data also shows the occurrence of an outstanding magnetic depression which runs from near Post 2,

The magnetic data indicated that it is underlain by a granite-diorite complex, similar to that located at the south part of the neighbouring Marion Township, and west of Rush Lake. A regional northwesterly fault, parallel to the Rush River fault, is inferred as running across the south and west parts of the property along an outstanding magnetic depression. A strong and unique negative pole located at L 30 E, 200' S, is considered as the choice indication for the occurrence of acidic material which may carry gold or other disseminating sulphide mineralisation.

The electromagnetic survey encountered negative results but there remains the possibilities of having disseminating type of mineralisation and/or heavy concentration of conductive minerals at great depth.

Since the topography is well outlined and there are many outcrop areas along the inferred regional fault zone, and also in the vicinity of the unique negative pole encountered by the magnetic survey, the writer recommends to carry out a program of geological mapping and prospecting to further check the possibility of the property.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED


S. S. Szetu, Ph. D., P. Eng.,
Consulting Geologist

SSS:rk
Encl.
Toronto, Ontario
June 18, 1971

Claim 8-279427, northwesterly across the property. Strong dipole effects are noted along this zone. This is inferred as indicating a fault zone which extends from Rae Lake to here and parallel to the Rush River fault. Minor cross faults cutting this zone are indicated between Lines 18E and 21E, and perhaps also between Lines 45E and 48E. There are many outcrop areas located along this fault zone for geological examination of this inferred structure.

The strongest magnetic depression encountered by the survey, however, is located at Line 30E, 200' south (minus 3300 gammas). This rather unique reading is apparently a negative pole located near a hill top and associated with no regional structure. It is the choice indication for the occurrence of acidic materials which may carry gold or other disseminating sulphide mineralisation.

The electromagnetic survey encountered no indication of the occurrence of heavy concentrations of conductive minerals. There remains, however, the possibilities of having disseminating type of mineralisation, similar to that located at Parr Mines, and/or heavy concentrations of conductive minerals at great depth.

CONCLUSIONS AND RECOMMENDATIONS -

The property is located about 1000 feet further to the west than recorded and the shape is different.

Appendix - Details of Instruments, etc.

(a) Type of instrument:- 1) SE-200, Serial No. 455, manufactured by Sharpe Instruments of Canada Limited, Toronto.

2) Fluxgate MF-1 magnetometer, Serial No. 30536, manufactured by Sharpe Instruments of Canada Limited, Toronto.

(b) Specifications:- 1) SE-200 E. M. unit; frequency 1250 c. p. s. ; separation up to 500', $\pm 3^\circ$ (null); batteries - 2 x 6 volt #731 Eveready, 1 x 9 volt #216 Eveready.

2) Fluxgate MF-1 magnetometer: maximum sensitivity = 20 gammas on 1,000 gamma range; ranges $\pm 1,000, 2,000, 10,000, 20,000, 100,000$ gammas; batteries: 12 x 1.5 V flashlight "C" cells.

(c) Survey procedures:- For the SE-200 survey, parallel line method was used with transmitter located 300' from the receiver on the next line, as described in this report.

For the magnetic survey, base-check method was used with control stations established at 600 foot or 900 foot intervals along the two base lines.

SPECIAL PROV



41009NW0032 2.470 MALLARD

ASSESSMENT WORK DETAILS

900

JUN 5 1971

JUN 25 1971

NAMES AND ADDRESSES

PROJECTS SECTION

PROJECTS SECTION

Chief Line Cutter or Contractor Jean Alix Co. Ltd., Valdor, Quebec.

Party Chief Joe Kakish, Ste. 426-12 Richmond St. E., Toronto.

Consultant S. S. Szetu. Ph. D., Geologist, Ste. 426-12 Richmond St., E., Toronto.

COVERING DATES

Line Cutting May 15 th to May 26th, 1971

Field and Office May 21 to June 18, 1971.

INSTRUMENT DATA

Make, Model and Type Sharpe Fluxgate MF-1 magnetometer & SE-200 EM unit

Scale Constant or Sensitivity 20 gammas / scale division on 1,000 gamma range
or provide copy of instrument data from Manufacturer's brochure

Total Number of Stations Within Claim Group 542

Number of Miles of Line cut Within Claim Group 10.85

ASSESSMENT WORK CREDITS REQUESTED

Geological Survey _____ Days per Claim

Geophysical Survey 60 Days per Claim

MINING CLAIMS TRAVERSED

S-279395 to S-279400, inclusive & S-279423 to S-279428 inclusive.

TOTAL 12 claims

DATE June 22, 1971

SIGNED S. S. Szetu

Submission of Geological and Geophysical Surveys
as Assessment Work

SPECIAL PROVISION

If, in the opinion of the Minister, a ground geophysical survey meets the requirements prescribed for such a survey, including:

- (a) coverage
- (b) line spacing not exceeding 400 foot intervals
- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings,

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

An additional ground geophysical survey using the same grid system and otherwise meeting these requirements will qualify for an assessment work credit of 20 days.

A geological survey using the same grid system, and meeting the requirements for submission of geological surveys for maximum credits will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geological survey a credit of 40 days per claim will be allowed for the survey.

Credits for partial coverage or for surveys not meeting requirements for full credit will be granted on a pro-rata basis.

MALLARD

SUDBURY MINING DIVISION
DISTRICT OF SUDBURY

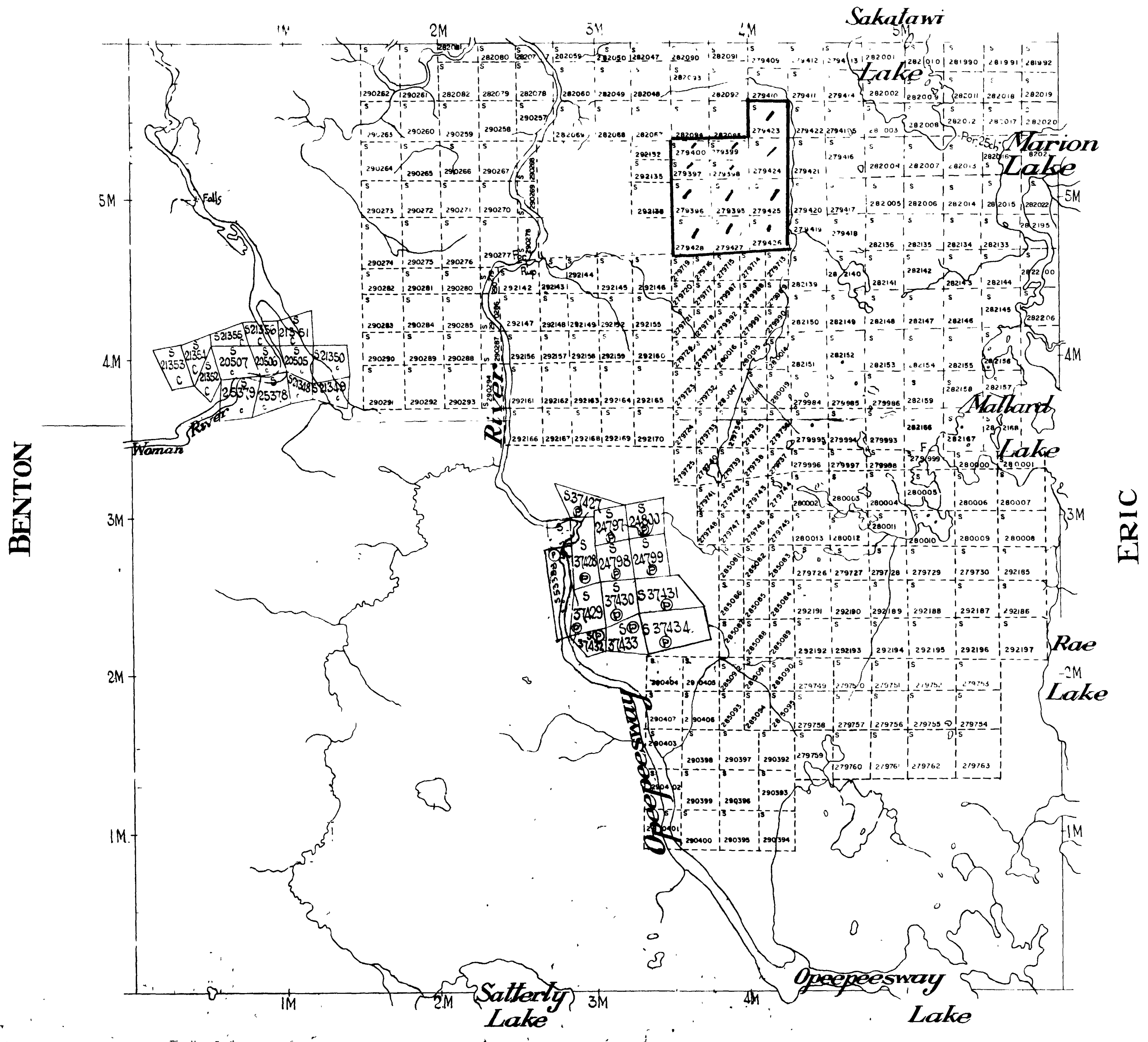
Scale - 40 Chains - 1 Inch

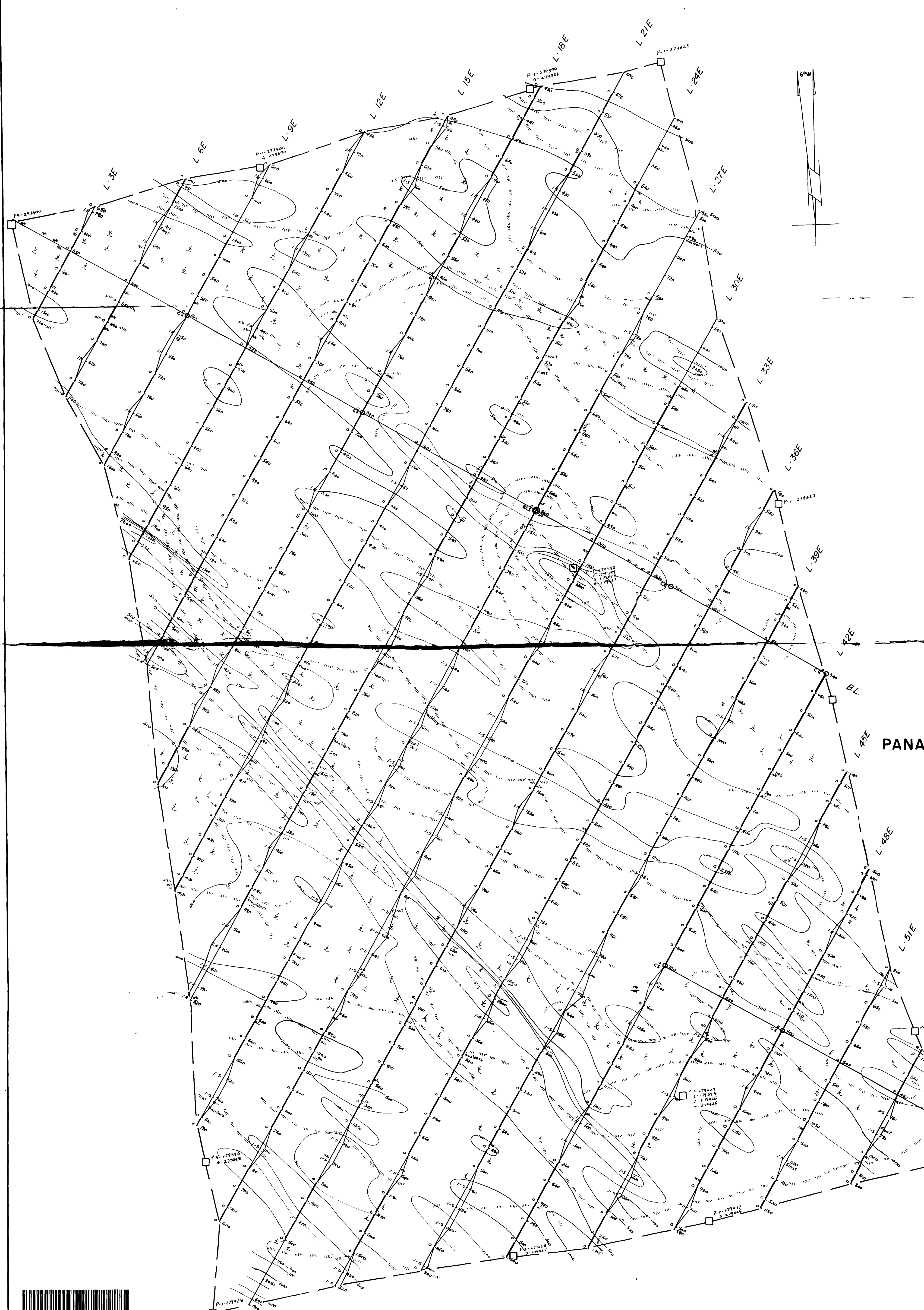
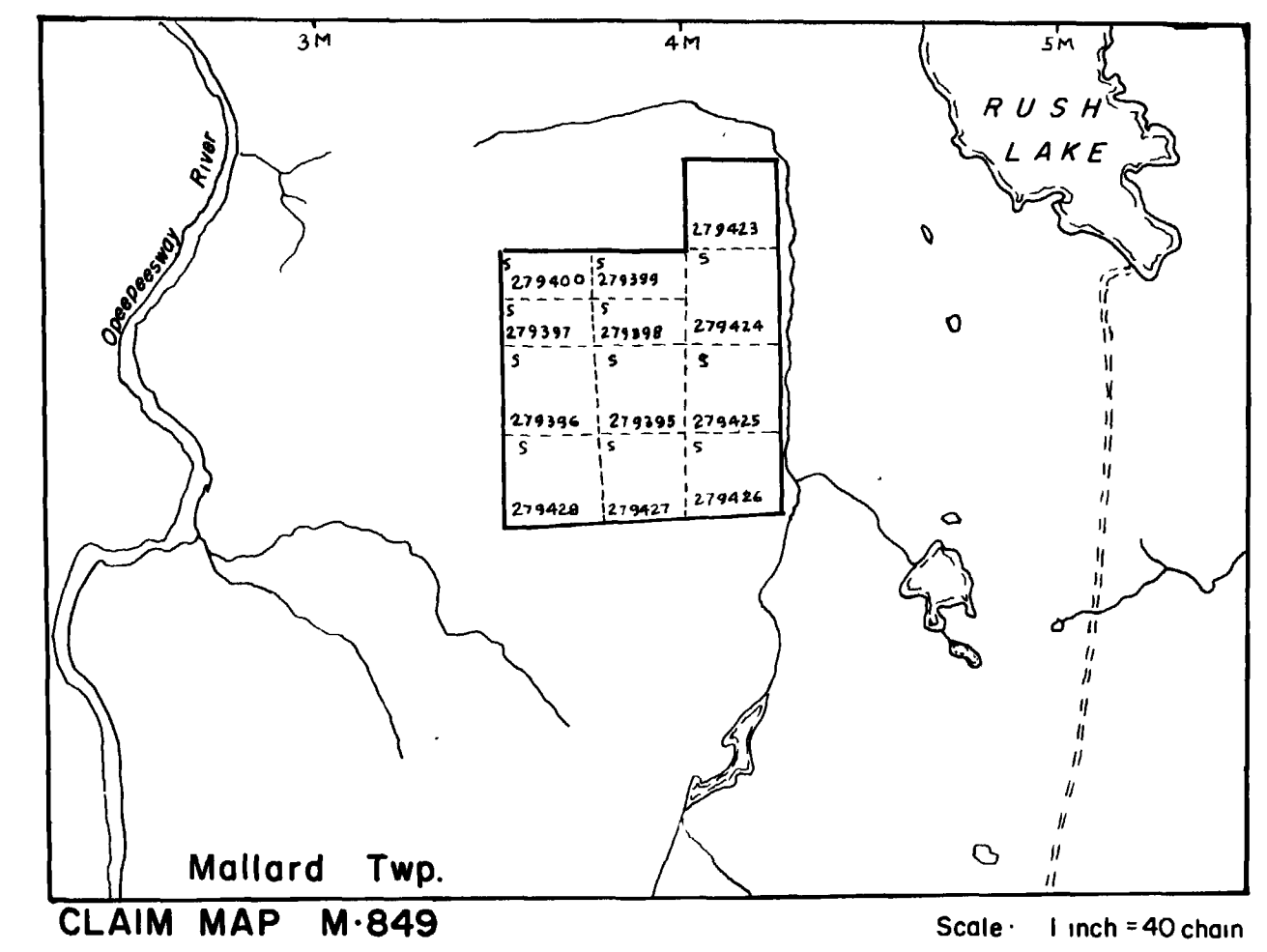
Claim map
MARION



NOTE

400' Surface Rights Reservation
around all Lakes and Rivers.





LEGEND

- Claim post and claim lines observed
 - o/c Outcrop area
 - High ground
 - Swamp
 - Magnetic contour
 - CS Magnetic control station
 - B.C.S. Base control station
 - Lines cut and chained, magnetic readings obtained by using a Fluxgate MF-1 Magnetometer with base-check method
- | | |
|-------------|--------|
| 1000 - 3300 | gammas |
| 0 - 1000 | gammas |
| 0 - 500 | gammas |
| 500 - 1000 | gammas |
| 1000 - 2000 | gammas |
| 2000 - 2900 | gammas |
- Electromagnetic dip angles obtained by using a SE-200 unit with parallel line method with transmitter located at 300 feet to the southeast from line 3E to line 30E, and at 300 feet to the northwest from line 30E to line 57E.
Scale of profile: 1/10 inch = 1°

GEOPHYSICAL SURVEY DATA ON
12-CLAIM GROUP PROPERTY
PANACEA MINING AND EXPLORATION LIMITED
MALLARD TOWNSHIP, RUSH LAKE AREA
SUDBURY MINING DIVISION
ONTARIO

Scale: 1 inch = 200 feet
June 1971
Cana Exploration Consultants Limited

S. S. Spohn

