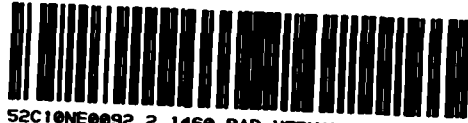


2.1460



52C10NE0092 2.1460 BAD VERMILION LAKE

010

RECEIVED

APR 19 1974

PROJECTS UNIT

SUPPLEMENT TO
MAGNETOMETER & ELECTROMAGNETIC SURVEY REPORT
DATED NOVEMBER 1, 1973
CIGLEN INVESTMENTS LIMITED CLAIMS GROUP
BAD VERMILLION LAKE AREA
DISTRICT OF RAINY RIVER
ONTARIO

April 2, 1974

J. D. McOANNELL

The Directors
Ciglen Investments Limited
Suite 403
67 Richmond Street West
Toronto, Ontario

Gentlemen:

The following discusses the results of magnetometer and electromagnetic survey work conducted over a portion of a group of thirty nine mining claims held by Ciglen Investments Limited and located at Bad Vermillion Lake, District of Rainy River, Ontario. Most of this claims group was covered by similar geophysical work during the month of August 1973, the results of which were described in a report dated November 1, 1973. At that time, it was not possible to cover the portion of the claims underlying the lake and the geophysical surveys discussed in this report were carried out over the water portion of the property during the month of February, 1974. A total of 9.34 miles of lines were surveyed by both the magnetometer and electromagnetic methods on the water portion of the claims group.

The magnetometer readings over the water parts of the property were observed to be uniformly low and comparable in intensities to the readings obtained over the land portion of the claims group. The only conductivity of any consequence observed in the electromagnetic survey, was a continuation of two conductors located on claim 349074 and delineated in the geophysical work carried out in August 1973. Other minor isolated weak conductivity indicated by the electromagnetic survey was believed to be caused by lake bottom conditions.

PROPERTY, LOCATION AND ACCESS

The property discussed in this report consists of a portion of fifteen mining claims which form a part of a group of thirty

nine claims located on the east side of Bad Vermillion Lake, District of Rainy River, Ontario. The entire group forms a contiguous block about three miles long in a north south direction and one mile wide at the widest point. The most westerly claims in the group either underlie or partially underlie Bad Vermillion Lake and include some islands in the Lake. Also a portion of three claims in the east central part of the group is covered by a small lake or beaver pond. The claims included in the entire group of thirty nine are further described as follows: K-349066 to K-349104 inclusive. Claims K-349086, 349100, 349101, 349102 and 349104 are either all or almost all covered by the waters of Bad Vermillion Lake and no geophysical work was done on these claims in August 1973.

The property can be readily reached by a good gravel road that leads south from Highway 11 at a point near the village of Mine Centre. The distance from Highway 11 to the north part of the claims group is approximately two miles.

GENERAL GEOLOGY

The geology of the entire claims group was discussed in ^{>2.1348} considerable detail in the report dated November 1, 1973. Map Number 334A, published by the Geological Survey of Canada in 1936, shows the rocks underlying the water claims in Bad Vermillion Lake to be basic intrusives consisting largely of anorthosite. This anorthosite is often cut with dikes or bands of gabbro and meta-diorite which may be just phases of the same intrusive mass. These basic intrusives contact younger granitic rocks, which in the immediate area of the claims group, consists largely of quartz porphyry. The contact between the anorthosite and younger granitic

rocks extends in a northeasterly direction through the central part of the thirty nine claim-group with the south and east part of the property being underlain by the porphyry and related granitic formations.

Map 334A shows a copper occurrence near the east shore of Bad Vermillion Lake, on claim 349074. This showing is in the anorthosite and a shaft was sunk on it several years ago. The material on the shaft dump shows a considerable amount of sulphide mineralization consisting of pyrite, pyrrhotite and some chalcoppyrite.

GEOPHYSICAL SURVEY

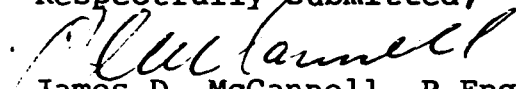
Magnetometer and electromagnetic surveys were conducted over the water portion of a group of thirty nine claims, the land portion of the property having been covered by similar geophysical work in August 1973. The present survey work covered various portions of ten claims and all of claims K-349086, 349100, 349101, 349102 and 349104. East-west traverse lines were established at 400-foot intervals and the observations were made at 100-foot intervals along these lines. The magnetometer work was carried out using a Scintrex MF-1 instrument, and the electromagnetic survey using a Geonic EM-16 instrument. The field work was completed during the period February 16 to 25, 1974. A total of 9.34 miles of lines were covered by both geophysical methods.

No anomalous conditions were indicated by the magnetometer results, the readings being uniformly low over the entire water portion of the property. Two conducting zones were indicated, both showing a northeast extension to two conductors on claim K-349074 and established in the electromagnetic survey work carried

(4)

out in August 1973. One of these conductors conforms very well with the copper occurrence located near the east shore of Bad Vermillion Lake and shown on geological map Number 334A. The other is a parallel zone located about six hundred feet east of the shaft sunk several years ago on this copper showing. Several other weak indications of conductivity were encountered at other points and underlying Bad Vermillion Lake but they were mostly confined to one observation and believed to reflect lake bottom rather than formational conditions.

Respectfully submitted,


James D. McCannell, P.Eng.,
Consulting Geologist.

Toronto, Ontario
April 2, 1974.





900

RECEIVED

APR 19 1974

PROJECTS UNIT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey EM & Magnetometer

Township or Area Grassy Lake Area, Kenora M.D.

Claim holder(s) Ciglen Investments Ltd.

403 - 67 Richmond St. W. Toronto, Ont.

Author of Report J.D. McCannell

Address 350 Bay St., Toronto, Ont.

Covering Dates of Survey Feb. 16 - 25, 1974
(linecutting to office)

Total Miles of Line cut 9.34

MINING CLAIMS TRAVERSED
List numerically

K 349077
(prefix) (number)

349086

349100

349101

349102

349104

and

K.349066 to 76 inclusive

349078 to 85 "

349087 to 99 "

349103

EM - 4 days per claim

Mag - 2 days per claim

TOTAL CLAIMS 6

**SPECIAL PROVISIONS
CREDITS REQUESTED**

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

Geophysical
-Electromagnetic 20
-Magnetometer 40
-Radiometric _____
-Other _____
Geological _____
Geochemical _____

DAYS
per claim

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: April 11, 1974 SIGNATURE: J.D. McCannell
Author of Report or Agent

PROJECTS SECTION

Res. Geol. _____ Qualifications 03-2502
Previous Surveys 2-1348 (EM + Mag) covers
land portion only.

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

OFFICE USE ONLY

If space insufficient, attach list

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 493 Number of Readings 493
Station interval 100 feet
Line spacing 400 feet
Profile scale or Contour intervals Mag. 1,000 gammas EM 1" = 40%
(specify for each type of survey)

MAGNETIC

Instrument Scintrex MF-1
Accuracy - Scale constant + or - 20 gammas
Diurnal correction method Base stations hourly
Base station location Base line at lines 56 N, 40 N, 4 N, 0+00 and 16 S.

ELECTROMAGNETIC

Instrument Geonics EM-16
Coil configuration _____
Coil separation _____
Accuracy + or - 1°
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 17 kHz, Cuttler, Maine
(specify V.L.F. station)
Parameters measured In phase, out of Phase

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION -- RESISTIVITY

Instrument _____
Time domain _____ Frequency domain _____
Frequency _____ Range _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

AREA OF
GRASSY LAKE
 DISTRICT OF
 RAINY RIVER
 KENOP
 MINING DIVISION
 SCALE: 1 INCH = 40 CHAINS

- LEGEND**
- PATENTED LAND
 - CROWN LANDS SALE
 - LEASES
 - LOCATED LAND
 - SIGNATURE OF CLAIMANT
 - MINING CLAIMS
 - CLIFFS
 - ROADS
 - APPROVED ROADS
 - RUN-INS
 - HIGHWAYS
 - RAILWAYS
 - POWER LINES
 - MINES OR MINEWORKS
 - MINES
 - CANCELLED

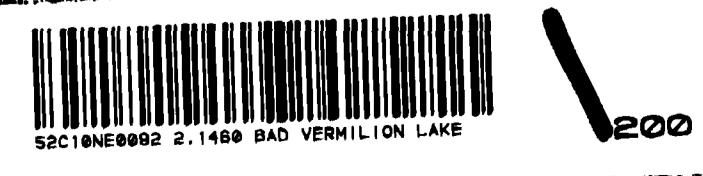
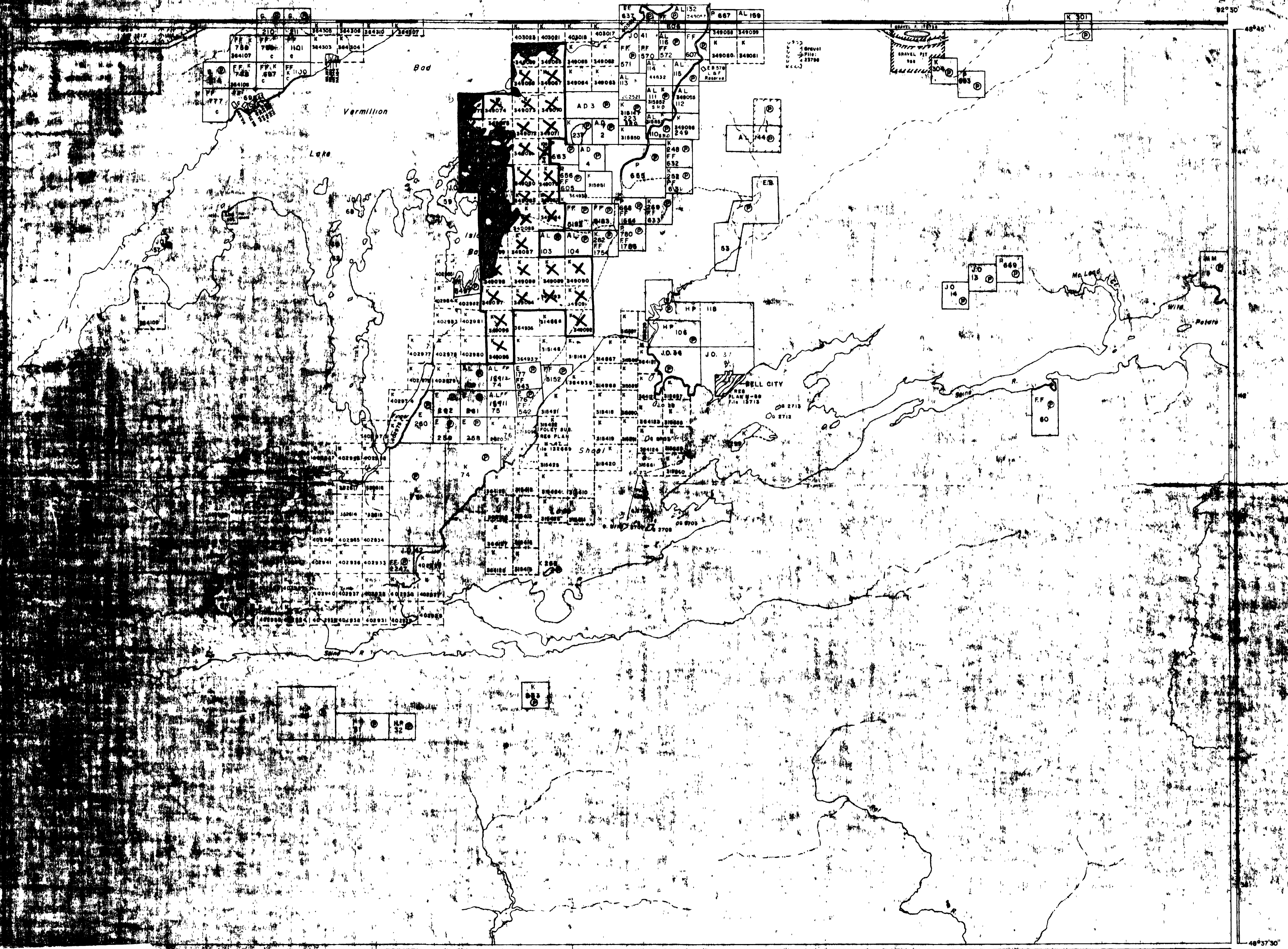
NOTES

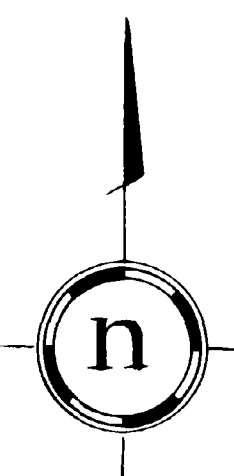
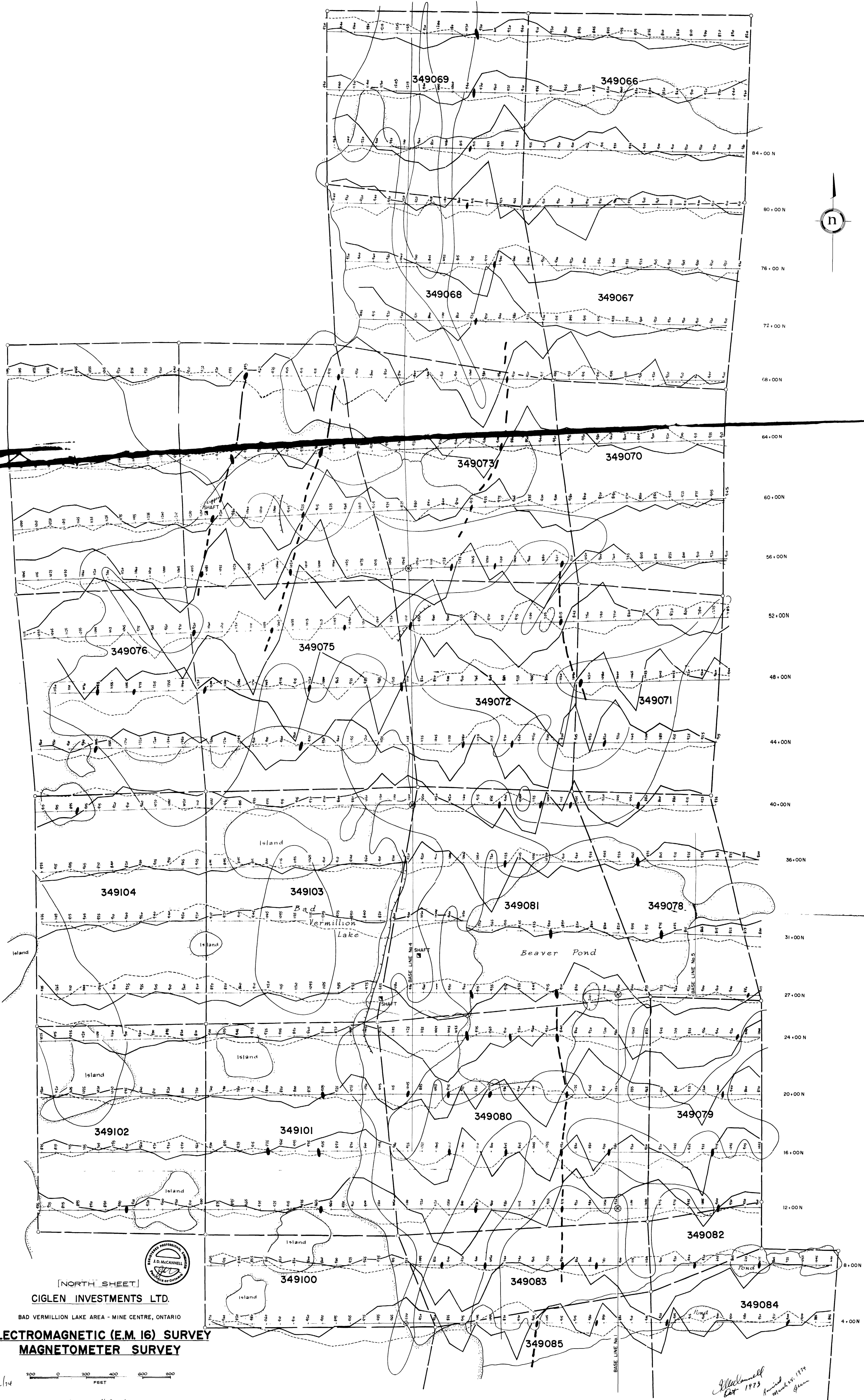
1. Reserve ground of Lakes & Rivers

DATE OF ISSUE
 BY
 MINISTRY OF NATURAL RESOURCES

File - 2-1460

NATIONAL TOPOGRAPHIC SERIES
 PLAN NO. **M 2473**
 ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SURVEYS AND MAPPING BRANCH





[NORTH SHEET]
CIGLEN INVESTMENTS LTD.

BAD VERMILLION LAKE AREA - MINE CENTRE, ONTARIO

**ELECTROMAGNETIC (E.M. 16) SURVEY
MAGNETOMETER SURVEY**

0 100 200 300 400 500
FEET

April 2/74
SEPT 75

For Legend See South Sheet.

J.D. McNeill
Sept 1973
Approved
March 22, 1974
G.D.



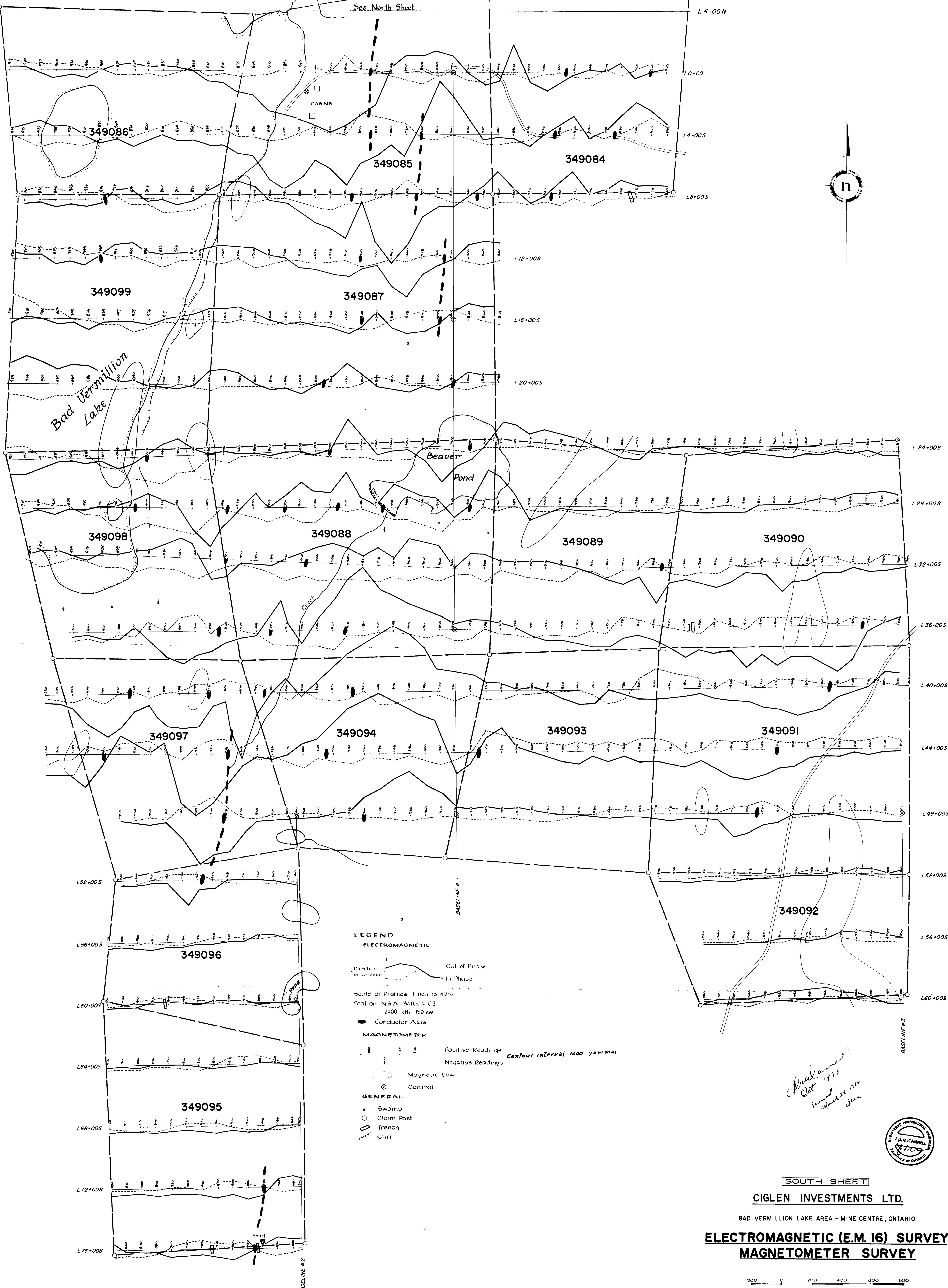
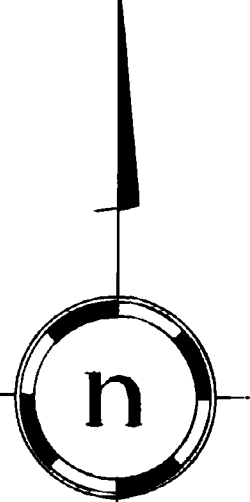
See North Sheet

L 4+00N

L 0+00

L 4+00S

L 8+00S



LEGEND

ELECTROMAGNETIC

Direction of Readings: Out of Phase (solid line), In Phase (dashed line)

Scale of Profiles: 1 inch to 40 feet
Station N B A - Balboa C 2
2400 kHz, 150 kw

Conductor Axis (solid black dot)

MAGNETOMETER

Positive Readings (solid line), Negative Readings (dashed line), Contour interval 1000 gammas

Magnetic Low (dashed circle), Control (circle with cross)

GENERAL

Swamp (wavy line), Claim Post (circle), Trench (dashed line), Cliff (solid line)

*Check amount
Oct 14 73
Amount
March 28, 1974
JLW*



SOUTH SHEET

CIGLEN INVESTMENTS LTD.

BAD VERMILLION LAKE AREA - MINE CENTRE, ONTARIO

ELECTROMAGNETIC (E.M. 16) SURVEY
MAGNETOMETER SURVEY

