



42A07NE0008 2.5231 BOWMAN

010

KIDD CREEK MINES LTD.
REPORT ON GEOPHYSICAL WORK
CURRIE AND BOWMAN TOWNSHIPS
N.T.S.: 42-A-7

CLAIMS: CURRIE TOWNSHIP
L 628085 - L 628096

BOWMAN TOWNSHIP
L 620869
L 628078 - L 628084

NOVEMBER, 1982

W. A. GASTEIGER

RECEIVED

NOV 20 1982

MINING LANDS SECTION

INTRODUCTION

During August 1982, detailed airborne magnetic and electromagnetic surveys were flown over a two mile by two mile area along the boundary between Currie and Bowman Townships. A total of 20 Kidd Creek Mines Ltd. claims are located in the flying area (12 in Currie Township, 8 in Bowman Township).

The general geology of this area consists of overall East-West stratigraphy consisting of felsic and mafic volcanics. Most of the Currie portion of the map sheet appears to be underlain by a granitic to syenitic stock. As well, the general area contains numerous north-striking Matachewan diabase dikes and a wide northeast-striking Keweenawan diabase dike.

Much previous work has been done in the map sheet area by the Tillex Syndicate, a joint venture among Inco, Asarco, Brascan, Western Mines and Derry, Michenen and Booth. Extension overburden drilling and till sampling combined with ground geophysics and diamond drilling led to the discovery of interesting copper mineralization in the south half of Lot 1, Concession VI of Currie Township.

SURVEY DETAILS

The survey was conducted by Aerodat Ltd. using a helicopter borne system. An Astar 350-D helicopter was used. The magnetometer was a GEOMETRICS G-803 Proton Precession type with a 1/2 gamma sensitivity. The EM was run with an AERODAT/GEONICS AEM system consisting of two vertical coaxial coil pairs operating at 940 Hz and 4550 Hz and one coplanar pair operating at 960 Hz.

Line spacing was 100 metres and mean flying height of the helicopter was 70 metres. The magnetometer bird was at 54 metres and the EM bird at 38 metres. The position of the helicopter was constantly monitored using a mini-ranger radar position system.

SURVEY RESULTS

On the attached map, the in-phase and quadrature profiles of the electromagnetic response are plotted along portions of any flight lines that traverse the claims. Flight line paths and the magnetics are plotted for the claims and surrounding area.

The magnetic pattern over the whole map sheet is quite complex and appears to be due various geologic events. The Bowman Township portion of the map sheet shows the east-west trends that represent the general stratigraphy of the

region. The high magnetics in the southern half of this area appears to be due to a basaltic sequence. This contact between basalts to the south and more felsic rocks to the north trends to the south-west in Currie Township. This is likely due the granitic stock that intrudes most of the Currie portion of the map sheet. The general northerly magnetic trends in this area are probably due to the influence of magnetic N-S diabase dikes intruding the low susceptibility granite.

The airborne EM results give little encouragement. Only three weak responses are located on the Kidd Creek claims. One very weak anomaly is located on the boundary of claims L 628092 and L 628089 in Currie Township. The in-phase response is only 2 ppm and the conductivity-thickness is less than 2 mhos. On claim L 628078, weak conductivity is indicated on adjacent flight lines 2210 and 2220. Again, conductivity-thickness of both of these responses is less than 2 mhos. None of these responses are indicative of a good bedrock conductor.

CONCLUSIONS AND RECOMMENDATIONS

The main reason for flying very detailed airborne magnetic and electromagnetic surveys in this area was to determine if any small but highly conductive zones had not been detected in previous work. No new, previously unknown good conductors were detected. The conductors discovered on

the Kidd Creek claims are of very weak conductivity and could very well be due to irregular bedrock topography combined with conductive overburden. Ground follow-up on claims L 620869 and L628078 would give a better indication of the conductivity of the zone in this area.

Will Gasteiger

WILL GASTEIGER

(file 2620869)

The IV



900

Type of Survey(s) Geophysical (Airborne EM & Claim Holder(s) KIDD CREEK MINES LTD. T-1

Address P.O. Box 1140, 571 Moneta Avenue, Timmins, Ontario

Survey Company Aerodat Ltd. Date of Survey (from & to) 25 08 82 04 09 82 Total Miles of line Cut

Name and Address of Author (of Geo-Technical report) W. A. GASTEIGER, P.O. Box 1140, 571 Moneta Avenue, Timmins, Ontario.

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Table with 3 columns: Special Provisions, Geophysical, Days per Claim. Rows for first survey (40 days) and additional surveys (20 days).

Table with 3 columns: Mining Claim Prefix, Mining Claim Number, Expend. Days Cr. Lists claims 620869 to 628096.

Table with 3 columns: Mining Claim Prefix, Mining Claim Number, Expend. Days Cr. Includes a 'RECEIVED' stamp from Larder Lake Mining Dist. dated OCT-6 1982.

Table with 3 columns: Man Days, Geophysical, Days per Claim. Rows for Electromagnetic, Magnetometer, Radiometric, and Other.

Table with 3 columns: Airborne Credits, Electromagnetic, Magnetometer, Radiometric. Includes a note: Note: Special provisions credits do not apply to Airborne Surveys.

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 1600, Date Recorded OCT-6 1982, Date Approved as Recorded 03:07:13, Mining Recorder signature.

Date October 5, 1982 Recorded Holder or Agent (Signature) Neil Santorini

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 W. A. GASTEIGER P.O. Box 1140, 571 Moneta Avenue TIMMINS, Ontario

Date Certified Oct. 5/82 Certified by (Signature) Neil Santorini



Ministry of Natural Resources

File _____

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

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(s) Airborne Mag & EM
Township or Area Currie & Bowman Townships
Claim Holder(s) KIDD CREEK MINES LTD.
Box 1140, Timmins, Ontario
Survey Company AERODAT LTD.
Author of Report W. GASTEIGER
Address of Author Box 1140, Timmins, Ontario
Covering Dates of Survey Aug./82 - Nov./82
(linecutting to office)
Total Miles of Line Cut ----

MINING CLAIMS TRAVERSED	
List numerically	
<u>L</u>	<u>620869</u>
	<small>(prefix) (number)</small>
<u>P</u>	<u>628078</u>
<u>P</u>	<u>628079</u>
<u>P</u>	<u>628080</u>
<u>P</u>	<u>628081</u>
<u>P</u>	<u>628082</u>
<u>P</u>	<u>628083</u>
<u>P</u>	<u>628084</u>
<u>P</u>	<u>628085</u>
<u>P</u>	<u>628086</u>
<u>P</u>	<u>628087</u>
<u>P</u>	<u>628088</u>
<u>P</u>	<u>628089</u>
<u>P</u>	<u>628090</u>
<u>P</u>	<u>628091</u>
<u>P</u>	<u>628092</u>
<u>P</u>	<u>628093</u>
<u>P</u>	<u>628094</u>
<u>P</u>	<u>628095</u>
<u>P</u>	<u>628096</u>
TOTAL CLAIMS <u>20</u>	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>DAYS</u> <u>per claim</u>
ENTER 40 days (includes line cutting) for first survey.	<u>Geophysical</u>
ENTER 20 days for each additional survey using same grid.	<u>--Electromagnetic</u>
	<u>--Magnetometer</u>
	<u>--Radiometric</u>
	<u>--Other</u>
	<u>Geological</u>
	<u>Geochemical</u>

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer 40 Electromagnetic 40 Radiometric _____
(enter days per claim)

DATE: Nov. 23/82 SIGNATURE: Will Gasteiger
Author of Report or Agent

Res. Geol. _____ Qualifications 2.1798

<u>Previous Surveys</u>			
<u>File No.</u>	<u>Type</u>	<u>Date</u>	<u>Claim Holder</u>
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____

(specify V.L.F. station)

Parameters measured _____

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

Instrument _____

Method Time Domain Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

INDUCED POLARIZATION RESISTIVITY

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____
(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) Airborne magnetic and electromagnetic

Instrument(s) Geometrics G-803 Proton Precession Magnetometer;

(specify for each type of survey)

Accuracy Mag: \pm 1/2 gamma EM: 1 ppm

(specify for each type of survey)

Aircraft used ASTAR 350-D Helicopter

Sensor altitude Mag: 54 metres EM: 38 metres

Navigation and flight path recovery method Position of aircraft constantly monitored digitally using a mini-ranger radar positioning system.

Aircraft altitude 70 metres Line Spacing 100 metres

Miles flown over total area 64 miles Over claims only 20 miles

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



Jan 31/83

Mining Lands Comments

To: Geophysics

Mr Barlow

Comments

- key map needed - use claim map in pocket

Approved

Wish to see again with corrections

Date *Feb 28/83*

Signature *Ryan R*

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

LD

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1982 12 02

2.5231

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for an Airborne
(Electromagnetic and Magnetometer) Survey submitted
on Mining Claims E 620869 et al in the Townships of
Currie and Bowman.

This material will be examined and assessed and a
statement of assessment work credits will be issued.

We do not have a copy of the report of work which is
normally filed with you prior to the submission of this
technical data. Please forward a copy as soon as
possible.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

DW:sc

cc: Kidd Creek Mines Limited
Timmins, Ontario
Attn: W. Gasteiger.

Kidd Creek Mines Ltd.

Box 1140
571 Moneta Avenue,
Timmins, Ontario P4N 7H9
(705) 267-1188

Exploration Division

November 25, 1982

Mr. E.F. Anderson
Director, Land Management Branch
Whitney Block, Room 6450
Queen's Park
TORONTO, Ontario
M7A 1W3


Dear Sir:

Re: Matheson & Currie Bowman Township Assessment Reports

Enclosed please find duplicate copies of reports and maps covering claims in Matheson and Currie-Bowman Township. The claims aforementioned are P-515771 et al in Matheson Township and L-628085 et al in Currie-Bowman Township.

Your prompt attention to this matter would be greatly appreciated.

Yours very truly,



WILL GASTEIGER
District Manager

WG/pp
Encls.

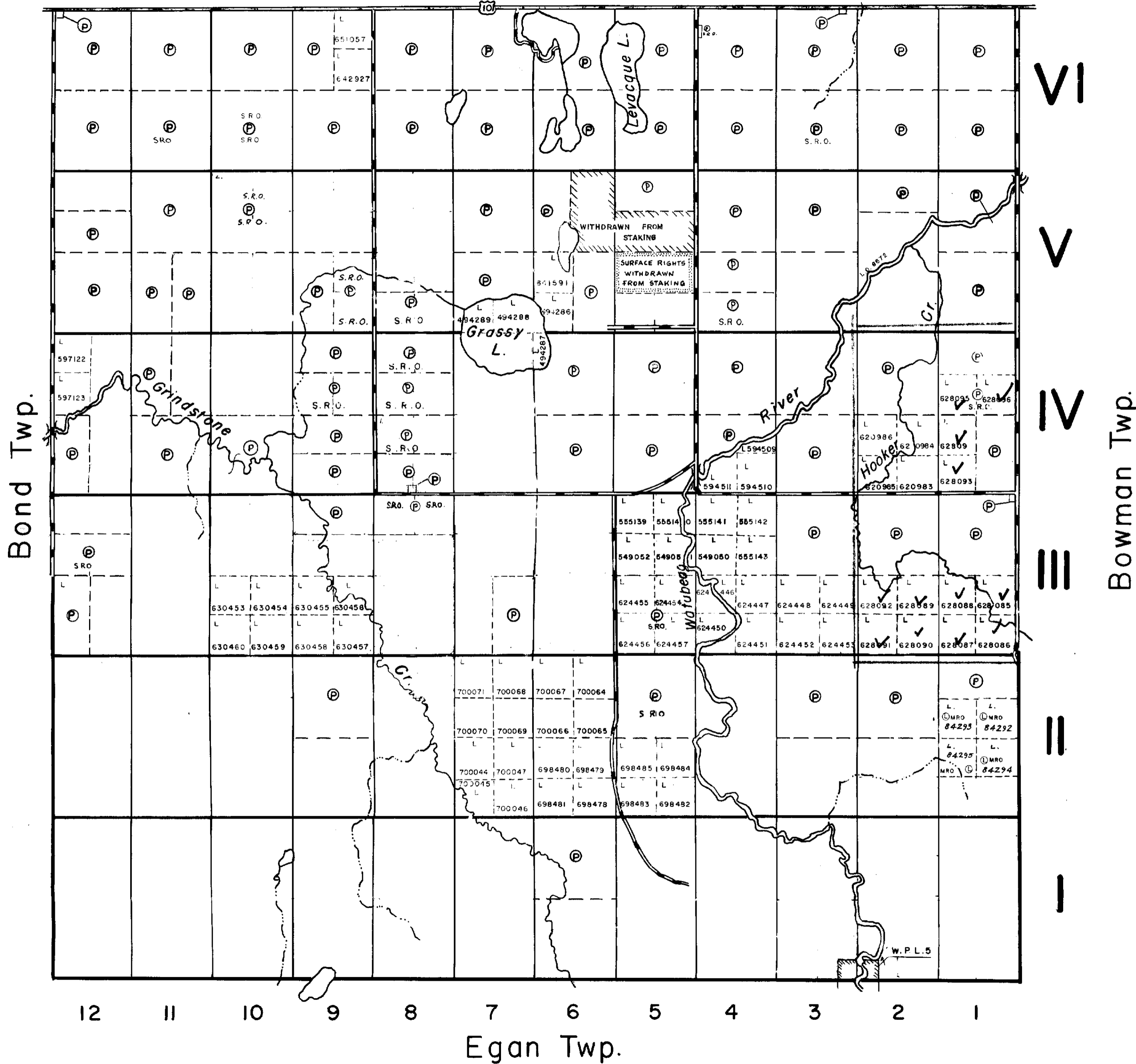
RECEIVED

NOV 26 1982

MINING LANDS SECTION

KIDD

Taylor Twp.



THE TOWNSHIP
OF

CURRIE

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE LEASES	Ⓢ or Ⓞ
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	

NOTES

AREA MARKED THUS Files: 11593, 21312
 WITHDRAWN FROM STAKING UNDER SEC. 39(D) OF MINING ACT
 400' Surface rights reservation around all lakes and rivers.

Areas withdrawn DATE OF ISSUE under Section 43 of the Mining Act (R.S.O. 1970).
 Order No. File JUL - 6 1983 Disposition
 Ministry of Natural Resources
 TORONTO

PLAN NO.- M.341

ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SURVEY AND MAPPING BRANCH



42A07NE0005 2.5231 BOWMAN

Carr Twp

THE TOWNSHIP OF
OF
BOWMAN

DISTRICT OF
COCHRANE

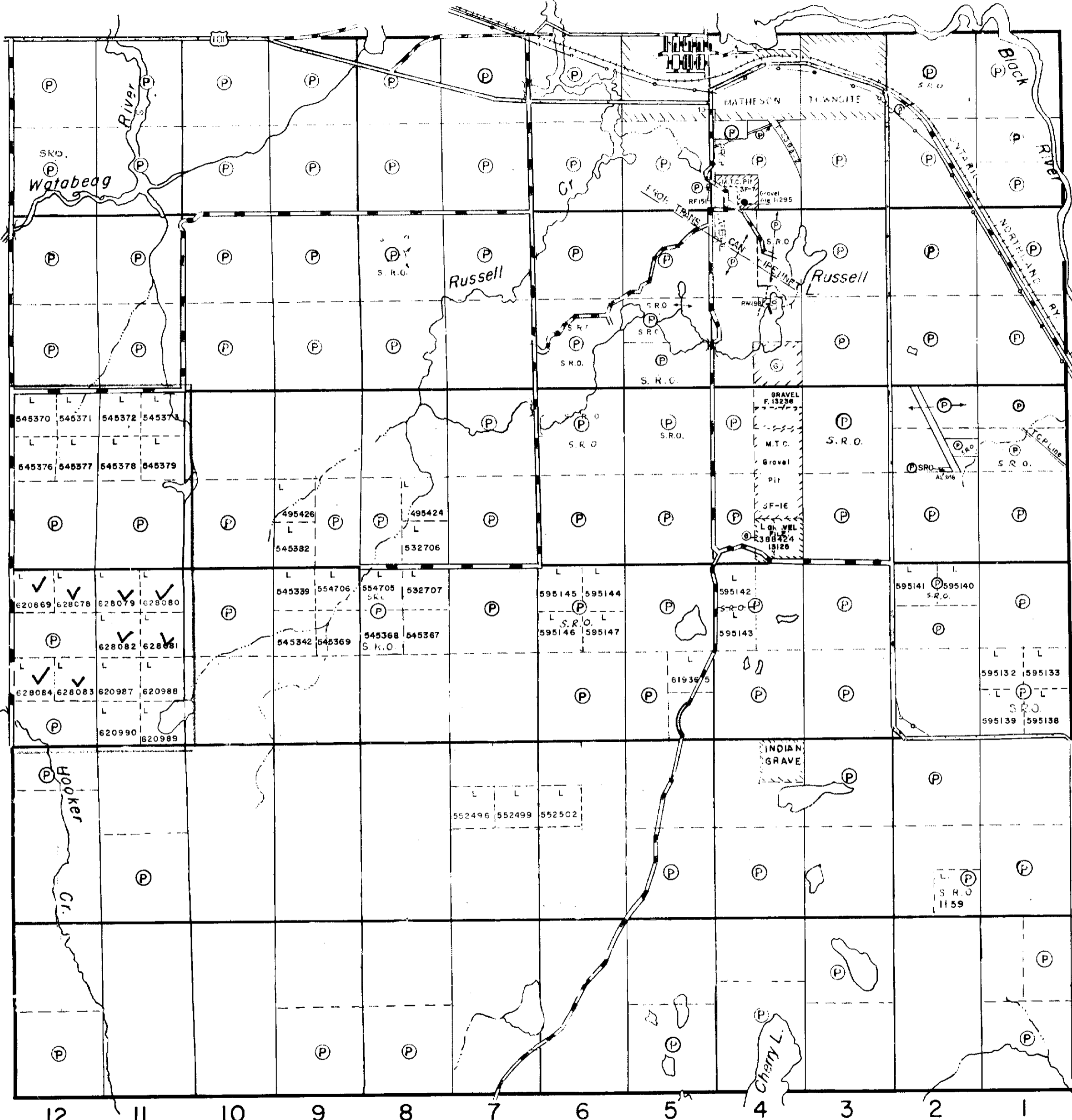
LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

VI
V
IV
III
II
I

Currie Twp.

Hislop Twp.



LEGEND

PATENTED LAND	(P)
CROWN LAND SALE LEASES	(S) or (C.S.)
LOCATED LAND	(L)
LICENSE OF OCCUPATION	Loc.
MINING RIGHTS ONLY	L.O.
SURFACE RIGHTS ONLY	M.R.O.
ROADS	S.R.O.
IMPROVED ROADS	(Symbol)
KINGS HIGHWAYS	(Symbol)
RAILWAYS	(Symbol)
POWER LINES	(Symbol)
MARSH OR MUSKEG	(Symbol)
MINES	(Symbol)
GEODECTIC STATION	(Symbol)

NOTES

400' SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS.

L O 8672 issued for flooding rights on Watabeag River

GRAVEL AND SAND

(Q) QUARRY PERMIT

DATE OF ISSUE

JUL - 6 1983

Ministry of Natural Resources
TORONTO

PLAN NO.- M-333

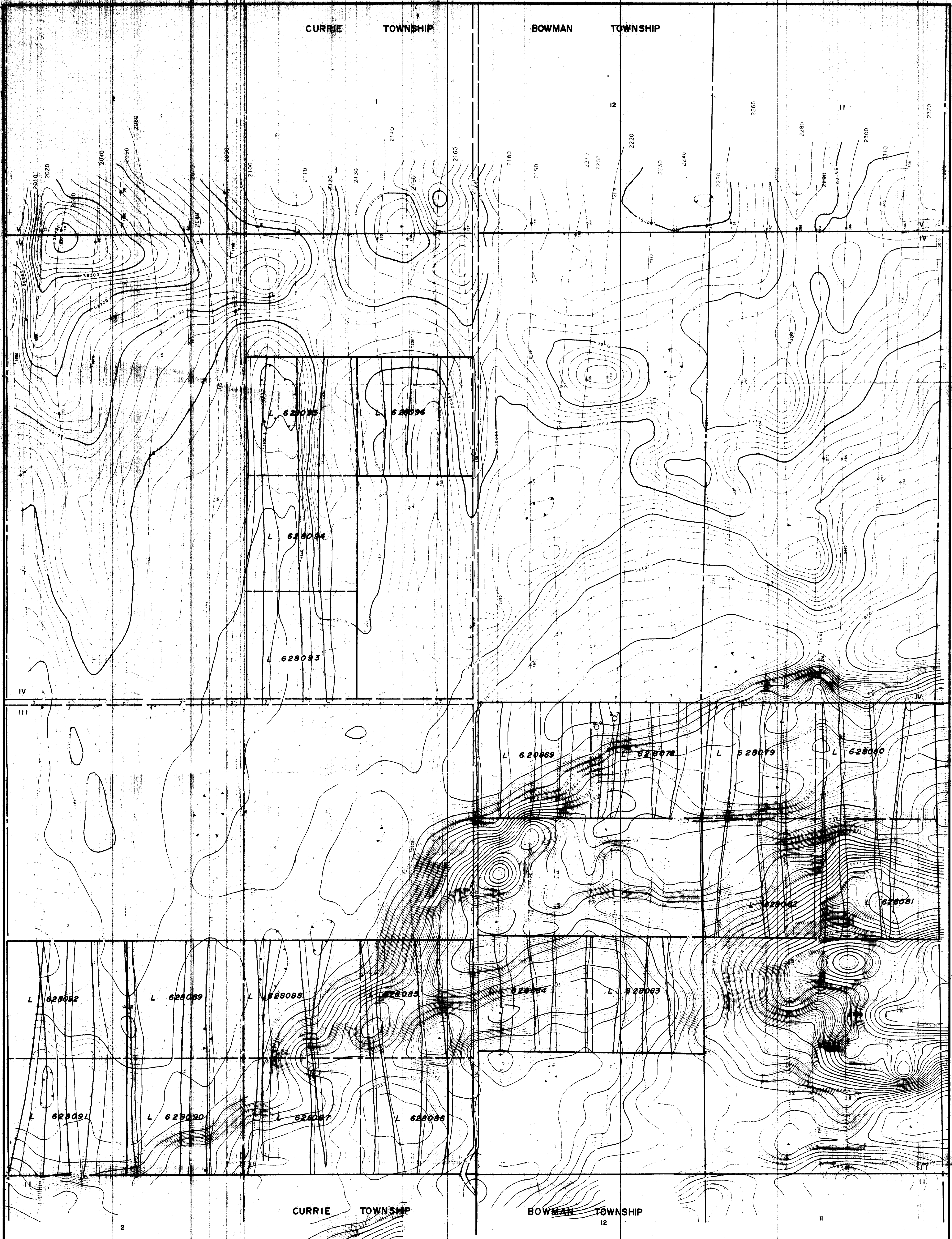
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

McCann Twp.



CURRIE TOWNSHIP

BOWMAN TOWNSHIP



LEGEND

CONTOUR INTERVALS — 20 gamma —
— 100 gamma —

Anomaly letter
in phase amplitude (ppm)

EM RESPONSE conductivity thickness in mha

- 9 -500
- 8 250 - 500
- 7 125 - 250
- 6 60 - 125
- 5 30 - 60
- 4 15 - 30
- 3 8 - 15
- 2 4 - 8
- 1 2 - 4
- 0 < 2

BOVE TERRAIN

220



Neil Gostager

KIDD CREEK MINES LTD.
CURRIE - BOWMAN TOWNSHIP
**AIRBORNE MAGNETICS &
ELECTROMAGNETICS**

SCALE 1:5000
0 100 m 200 m 300 m 400 m 500 m

Date of Survey: 19 / 11 / 82 Drawn by: D. E. Lam
Survey by: W. Gostager N.T.S.: 42 - A / 7 8 10

