COPY No. 1 of 2 - for - The Mining Administrator
Ontario Ministry of Natural Resources
Room6452 Whitney Block, Queen's Park
Toronto, Ontario.

REPOR.

010

GEOPHYSICAL SURVEYS

CLAIMS TB-489588, TB-489589, TB-489590

KEEZHIK CREEK GOLD PROPERTY

NESTING LAKE AREA

THUNDER BAY MINING DIVISION

ONTARIO

RECEIVED
NOV 1 9 1982
MINING LANDS SECTION

BY

A. S. BAYNE, P.Eng., ONTARIO

NOVEMBER 15, 1982

TABLE OF CONTENTS

MAPS - See pocket in back

Plan No. 1, Magnetic Survey Data - 1" = 200'.

Plan No. 2, Electromagnetic Survey Data - 1" = 200'.

INTRODUCTION

This report describes the results of a program of geophysical surveys carried out to cover claims TB-489588, TB-489589 and TB-489590, Thunder Bay Mining Division, Ontario. The fieldwork was conducted by A. S. Bayne & Company in September 1982 and the results are depicted on two plans accompanying this report, plotted to the scale 1:2400 or 1" = 200'.

PROPERTY, LOCATION AND ACCESS

The claims are contiguous and located at Keezhik Creek, Nesting Lake Area, District of Kenora - Patricia Portion.

The location is about a mile north of Curry Bay of Lake Miminiska on the Albany River, about 65 air miles (121 km) east from Pickle Lake, 225 air miles north of Thunder Bay.

A widening of Keezhik Creek some 3/4 mile in length enables Beaver or Otter aircraft from Pickle Lake and elsewhere to land at the southeast part of the claim group.

GEOLOGY, TOPOGRAPHY AND GOLD SHOWING

The underlying rocks in the immediate area of the claims are Keewatin volcanics and sediments. The main rock structure strikes northeasterly and dips steeply (70^{o} - 80^{o}) north to vertical.

The topography is generally flat with small outcrop areas. Several of these were noted by previous workers. However, the present survey crew has encountered other outcrop areas which were not observed by previous workers.

As marked on the two plans accompanying this report, a trench with a gold showing is located within one of the outcrop areas. This is the main gold showing described by me in my previous reports to Ymir Mining & Explorations Ltd. and by others.

PREVIOUS MAGNETIC SURVEY

During the winter of 1976, the three claims were part of an area covered by a magnetometer survey by J. Koski, B.Sc. Lines were run northwest at 400-foot intervals with 50-foot stations. A northwesterly-striking basic dyke was inferred as cutting across TB-489588 to account for a small magnetic anomaly outlined over water of Keezhik Creek at the southeast corner of said claim.

SURVEY METHOD AND INSTRUMENTS

The present program of geophysical survey involved a magnetometer survey using a Fluxgate MF-1 magnetometer and an electromagnetic survey, using a Ronka EM-16 instrument with transmitter station NAA. Lines were run north-south at 400-foot intervals with 100-foot and 50-foot stations as depicted on the two plans accompanying this report.

Base control-method was followed by the magnetometer survey with the control stations located on the base line at L4 and L28.

The VLF electromagnetic survey was operated with the operator facing southerly 90^{0} to the transmitter station NAA, Cutler, Maine, with a frequency of 17.8 kHz. In-and-out-of-phase readings were taken in percent.

SURVEY RESULTS

The magnetic survey (see Plan No. 1) encountered no indication to support the interpretation of a northwesterly-striking basic dyke across claim TB-489588. However, the occurrence of a narrow dyke is not impossible as most of the readings were taken at 100-foot stations.

Furthermore, the area is apparently rather flat magnetically to suggest the three claims are underlain by similar rocks. It is interesting to note that there are places where readings are lower than those encountered at the trench where gold was associated with non-magnetic quartz material.

The electromagnetic survey (see Plan No. 2) encountered a good conductor zone at about 150 feet north of the gold showing. The zone appears to have been shifted to the south in claim TB-489590. The characteristics of these conducting zones suggested mainly structural type of conductors such as shear zone or geological contact with or without appreciable conductive minerals such as graphite and sulphides.

The survey also encountered several poor conductors which are apparently due to overburden and/or near surface features.

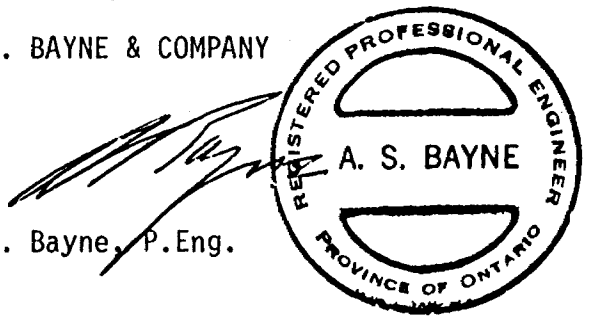
CONCLUSIONS AND RECOMMENDATIONS

The geophysical surveys had obtained data which are useful for further understanding the geology of the claim group. As the electromagnetic survey encountered an east-westerly-striking conductive zone at a short distance from the gold showing, one would wonder if the indicated structure is associated with gold mineralization.

As several new outcrop areas have been noted by the survey crew, it is apparent that geological mapping together with some prospecting should be followed to examine further the geology and the geophysical indications prior to exploratory diamond drilling.

Respectfully submitted

A. S. BAYNE & COMPANY



A. S. Bayne, P.Eng.

Toronto, Ontario

November 15, 1982

The electromagnetic survey (see Plan No. 2) encountered a good conductor zone at about 150 feet north of the gold showing. The zone appears to have been shifted to the south in claim TB-489590. The characteristics of these conducting zones suggested mainly structural type of conductors such as shear zone or geological contact with or without appreciable conductive minerals such as graphite and sulphides.

The survey also encountered several poor conductors which are apparently due to overburden and/or near surface features.

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The geophysical surveys had obtained data which are useful for further understanding the geology of the claim group. As the electromagnetic survey encountered an east-westerly-striking conductive zone at a short distance from the gold showing, one would wonder if the indicated structure is associated with gold mineralization.

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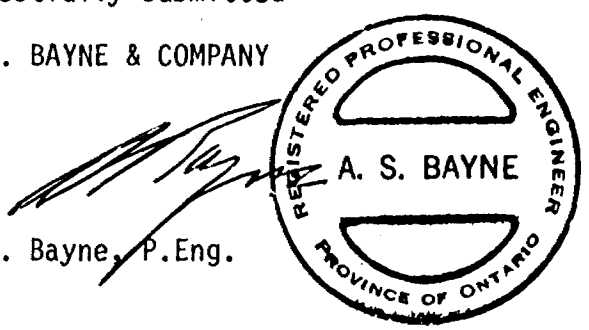
Respectfully submitted

A. S. BAYNE & COMPANY



A. S. Bayne, P.Eng.

Toronto, Ontario

November 15, 1982

Ontario

Ministry of Na

GEOPHYSICAL – GEOLO
TECHNICAL DA...

52P10NE0024 2.5204 NESTING LAKE

900

...o Report dated
November 15, 1982

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) Magnetic & Electromagnetic

Township or Area Nesting Lake Area

Claim Holder(s) Sui Shing SZETU

Survey Company A.S. Bayne & Company

Author of Report A. S. Bayne, P.Eng.

Address of Author Ste.438, 17 Queen St. E., Toronto, Ont.

Covering Dates of Survey Sept. 7 to Nov. 1982
(linecutting to office)

Total Miles of Line Cut 3.17

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	20
–Magnetometer	40
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

DATE: Nov. 16, 1982 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 63A.384

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
TB	489590
TB	489589
TB	489588

If space insufficient, attach list

TOTAL CLAIMS Three (3)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 160 Number of Readings 160 magnetic 320 EM

Station interval 100 ft. and some 50 ft. Line spacing 400 ft.

Profile scale 1" = 20%

Contour interval 50

MAGNETIC

Instrument Fluxgate MF-1

Accuracy – Scale constant 20 gammas on 1,000 gamma range

Diurnal correction method Base control

Base Station check-in interval (hours) 2 hours

Base Station location and value L4, 160 (3160)

ELECTROMAGNETIC

Instrument Ronka EM-16 by Geonics Ltd.

Coil configuration

Coil separation

Accuracy ±1%

Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency 17.8 kHz, NAA, Cutler, Maine
(specify V.L.F. station)

Parameters measured Vertical in-phase and out-of-phase components

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

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

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) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

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 _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

2.5204

1983 07 07 2.5204

Mrs. Audrey Hayes
Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

RE: Geophysical (Electromagnetic and Magnetometer) Survey on Mining Claims TB 489588 et al in the Nesting Lake Area

---

The Geophysical (Electromagnetic and Magnetometer) Survey assessment work credits as shown on the attached statement have been approved as of the above date.

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

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

D. Kinvig:mc

Attach:

cc: Sui Shing Szeto
36 Whittaker Crescent
Willowdale, Ontario
M2K 1K8

cc: Resident Geologist
Thunder Bay, Ontario

Ontario

2.5204

Ministry of Natural Resources

Notification of recording of assessment work credits

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

RECEIVED
OCT 15 1982
MINING LANDS SECTION

Date of recording of work: September 22, 1982

Recorded holder: Sui Shing Szetu

Address: 36 Whittaker Crescent, Willowdale, Ontario

Township or Area: NESTING LAKE AREA (G342)

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	TB489588- 90 inclusive
Electromagnetic 20 days	
Magnetometer 40 days	
(Linecutting)	
Radiometric ____ days	
Induced polarization ____ days	
Section 86 (18) ____ days	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	

Notice to recorded holder:

☒ Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.

☐ Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Audrey M. Hayes
Mining recorder

c.c. A.S. Bayne & Company
17 Queen Street East
Toronto, Ontario

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.5204

1983 07 07

Recorded Holder
SUI SHING SZETU

Township or Area
NESTING LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	TB 489588 to 90 inclusive
Electromagnetic 20 days	
Magnetometer 40 days	
Radiometric ____ days	
Induced polarization ____ days	
Section 86 (18) ____ days	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	
77(16)	

Special credits under section ~~86 (15a)~~ for the following mining claims

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 ~~86(18)~~ 60:
77(19)

828

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.5204

Mining Lands Comments

☑ To: Geophysics R. BARLOW

Comments

☑ Approved ☐ Wish to see again with corrections | Date May 11/83 | Signature A R Barlow

☐ To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

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

1593 (81/10)

1982 11 25 2.5204

Mrs. Audrey Hayes
Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims TB 489588 et al in the Area of Nesting Lake.

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

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: A.S. Bayne& Company
Toronto, Ontario

cc: Sui Shing Szetu
Willowdale, Ontario

A. BAYNE & COMPANY
CONSULTING ENGINEERS

17 Queen Street East
TORONTO, ONTARIO, CANADA
M5C 1P9 TEL: (416) 368-3283

ADDRESS ALL CORRESPONDENCE • 45 STRATHALLAN BLVD., TORONTO, ONTARIO M5N 1S8 • TEL: 485-6793

November 16, 1982

DELIVERED BY HAND

RECEIVED
NOV 19 1982
MINING LANDS SECTION

Mr. Fred W. Matthews
Mining Administrator
Ontario Ministry of Natural Resources
Room 6452 Whitney Block
Queens Park
Toronto, Ontario
M7A 1W3

Dear Mr. Matthews:

Re: Assessment Work - Geophysical (Special Provision)
Claims Nos. TB-489588 to 489590, inclusive,
Area of Nesting Lake

On September 22, 1982, we recorded work under Special Provisions, as follows:-

On Claims TB-489588 to 489590, inclusive:

- Line cutting and magnetometer survey - 40 days per claim
- Electromagnetic survey - 20 days per claim

Total - 60 days per claim

Enclosed, in duplicate, you will find my "Report on Geophysical Surveys, Claims TB-489588, TB-489589 and TB-489590, Keezhik Creek, Gold Property, Nesting Lake Area ---", dated November 15, 1982. The O.M.N.R. Technical Data Statement is attached as Appendix I. The pertinent maps are enclosed in back of the report.

Yours sincerely,

A. S. Bayne, P.Eng.

ASB:TP

Encs.

			LM	Mag.				2.5.2011
		1B: 489588	1/4	1/4	→ ~50 readings,			
					& [illegible]			
		89	✓	✓				
		90	✓	✓				
								W.K.

REFERENCES

NORTH BAY (KEEZHIK LAKE) G-347

TROUTFLY LAKE G-437

FERGUSON LAKE G-249

MIMINISKA LAKE G-332

88°45' 44' 43' 42' 41' 40' 39' 38' 37' 36' 35' 34' 33' 32' 31' 88°30'

51°45' 44' 43' 42' 41' 40' 39' 38' 51°37'30"

KEEZHIK L.

NESTING L.

TROUTFLY

SOUTH BAY

CR

KEEZHIK

N.O. OPEN GROUND

2.5M

2.5M

DATE OF ISSUE
JUN - 3 1983
Ministry of Natural Resources
TORONTO

REFERENCES

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	S

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)

AREA

NESTING LAKE

M.N.R. ADMINISTRATIVE DISTRICT

GERALDTON

MINING DIVISION

THUNDER BAY

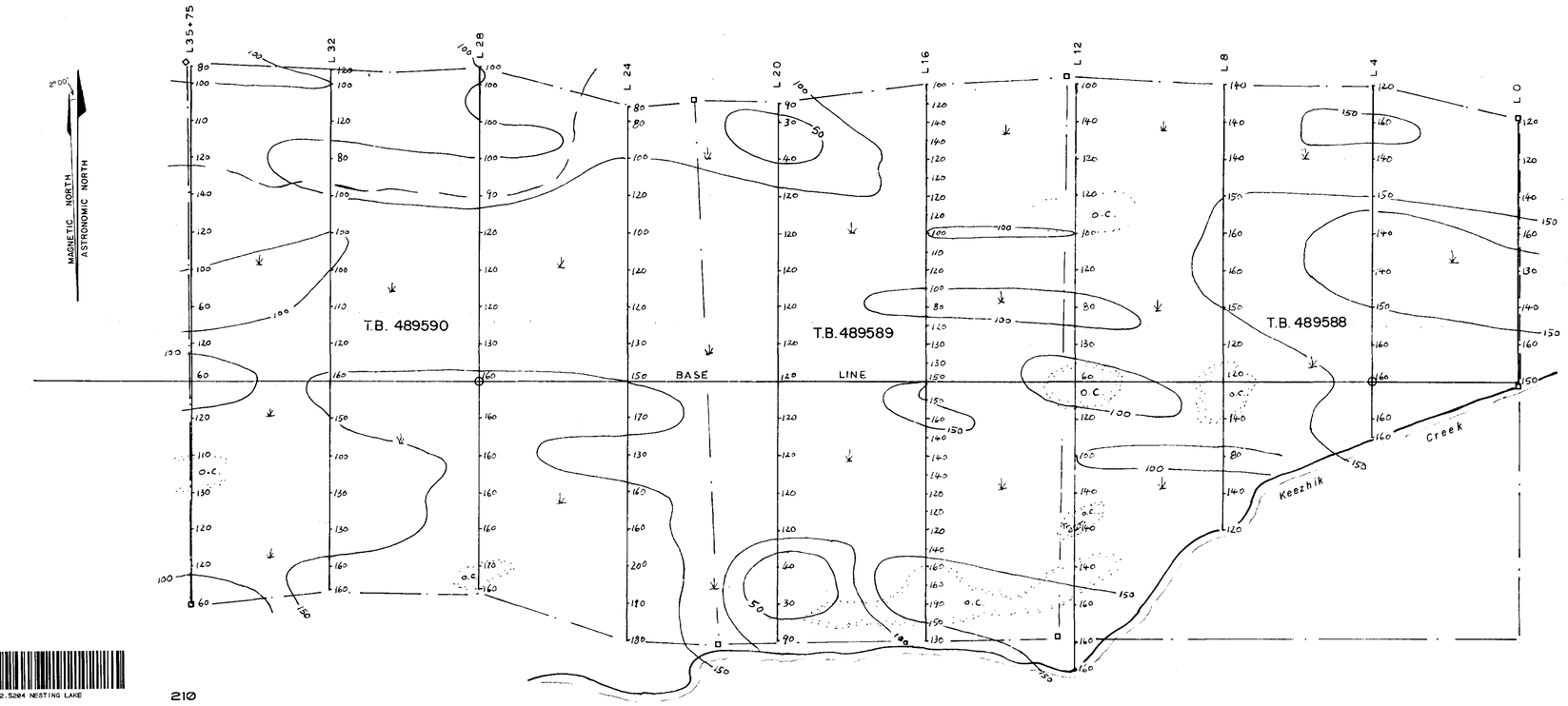
LAND TITLES / REGISTRY DIVISION

KENORA/PATRICIA

Ontario Ministry of Natural Resources — Land Management Branch

Date	Number
JULY 1981	G-342

S2P18NE0024 2.5284 NESTING LAKE



PLAN NO. 1.

MAGNETIC SURVEY DATA

CLAIMS T.B. 489588, T.B. 489589, T.B. 489590

KEEZHIK CREEK GOLD PROPERTY

Area of Nesting Lake

Thunder Bay Mining Division, Ontario

Scale : 1 inch = 200ft. (1:2400)

September 1982

LEGEND

160
130
140

Magnetic readings obtained by using a Fluxgate MF-1 magnetometer, plotted east of each station which was established on a north-south line grid.

C3 — Magnetic control station

Claim post and claim line

O.C. — Outcrop area

Tr. — Trench with gold showing

Swamp

Boundary of dry ground with possible shallow overburden

200
150
100
50

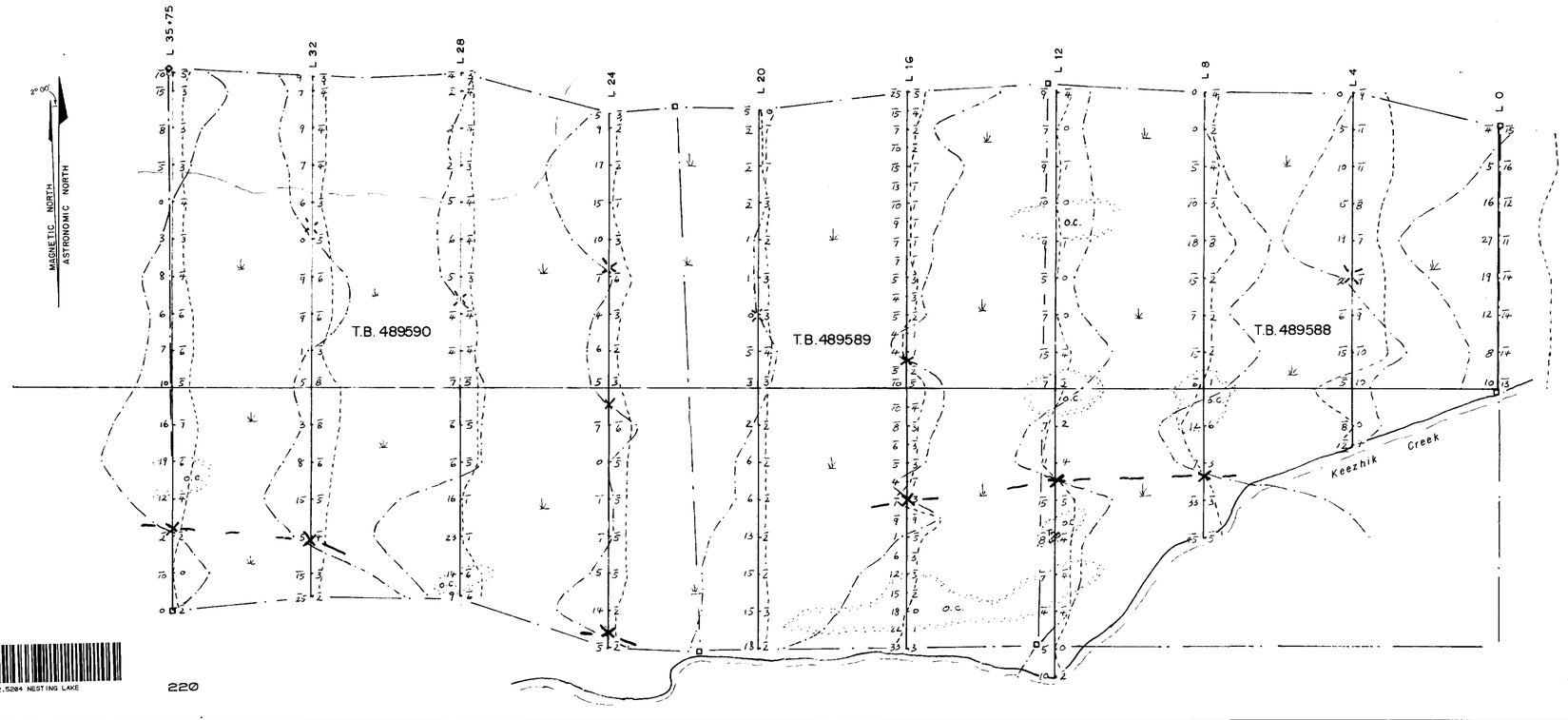
Magnetic contours

Toronto, Canada
October 1982

A. S. Bayne & Company
Mining & Metallurgical Engineers

2.5204

52P10NE0024 2.5204 NESTING LAKE



PLAN NO. 2

ELECTROMAGNETIC SURVEY DATA

CLAIMS T.B. 489588, T.B. 489589, T.B. 489590

KEEZHIK CREEK GOLD PROPERTY

Area of Nesting Lake

Thunder Bay Mining Division, Ontario

Scale : 1 inch = 200ft. (1:2400)

September 1982

LEGEND

- Electromagnetic readings obtained by using a Ronka EM-16 instrument with operator facing south at a right angle to the transmitter station NAA; in-phase readings plotted west and out-of-phase readings plotted east at each station established
- In-phase profile ——— Out-of-profile (Scale of profiles = 1/10" = 2% phase change)
- Electromagnetic conductor and inferred conductor axis
- Weak and/or near surface conductor
- O.C. Outcrop area
- Tr. Trench with gold showing
- Swamp
- Boundary of dry ground with possible shallow overburden
- Claim post
- Claim line

Toronto, Canada
October 1982

A. S. Bayne & Company
Mining & Metallurgical Engineers

52P10NE8824 2.5204 NESTING LAKE

220

2.5204