

REPORT
ON THE
**GEOPHYSICAL MAGNETOMETER,
GRADIOMETER & VLF-EM SURVEY**
ON THE
SOUTH MCVICAR LAKE PROPERTY
MCVICAR LAKE AREA - G 2121
PATRICIA MINING DIVISION

FOR

BAYAURA MINES LTD.
SUITE 1650; ELVDEN HOUSE
717 - SEVENTH AVENUE S.W.
CALGARY, ALBERTA
T2P 0Z2

PREPARED BY
L.C. CHASTKO P.Eng. F.G.A.C.
INDEPENDENT EXPLORATION SERVICES LTD.
WINNIPEG, MANITOBA

JUNE 7, 1988

*Zuel
63.2591*

RECEIVED

JUN 16 1988

MINING LANDS SECTION



52011SW0011 2.11311 MCVICAR LAKE

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1.1 SUMMARY

- 1). 0.7 km. of base line and 8.8 km. of grid lines were cut over the property.**
- 2). 8.8 km. of combined total field magnetometer, vertical gradient and VLF-EM surveys were conducted over the property.**
- 3). Four relatively weak VLF-EM trends were outlined.**
- 4). A strong truncated magnetic expression underlays the central portion of the property and is believed to outline a mafic to ultra mafic intrusive.**

1.2 RECOMMENDATIONS

- 1). The results of the combined surveys have not produced any definitive targets for further exploration.
- 2). Geological mapping and prospecting may upgrade the targets outlined.
- 3). Barring positive prospecting results no further work is recommended on the property based on the geophysical surveys.

Respectfully submitted,

L.C. Chastko, P.Eng. F.G.A.C.



N. W. ONTARIO

MAJOR ARCHEAN
GEOLOGIC BELTS

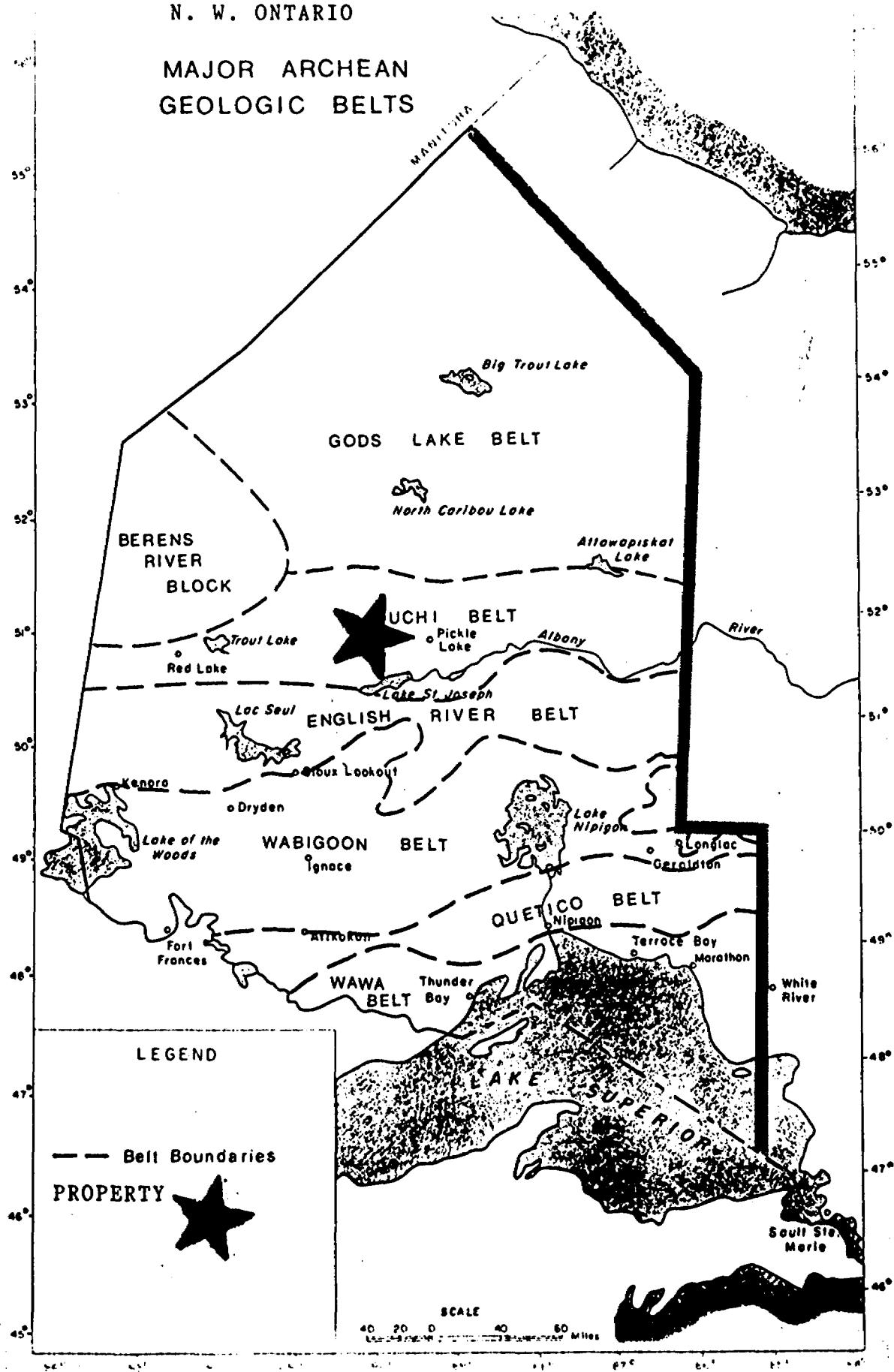
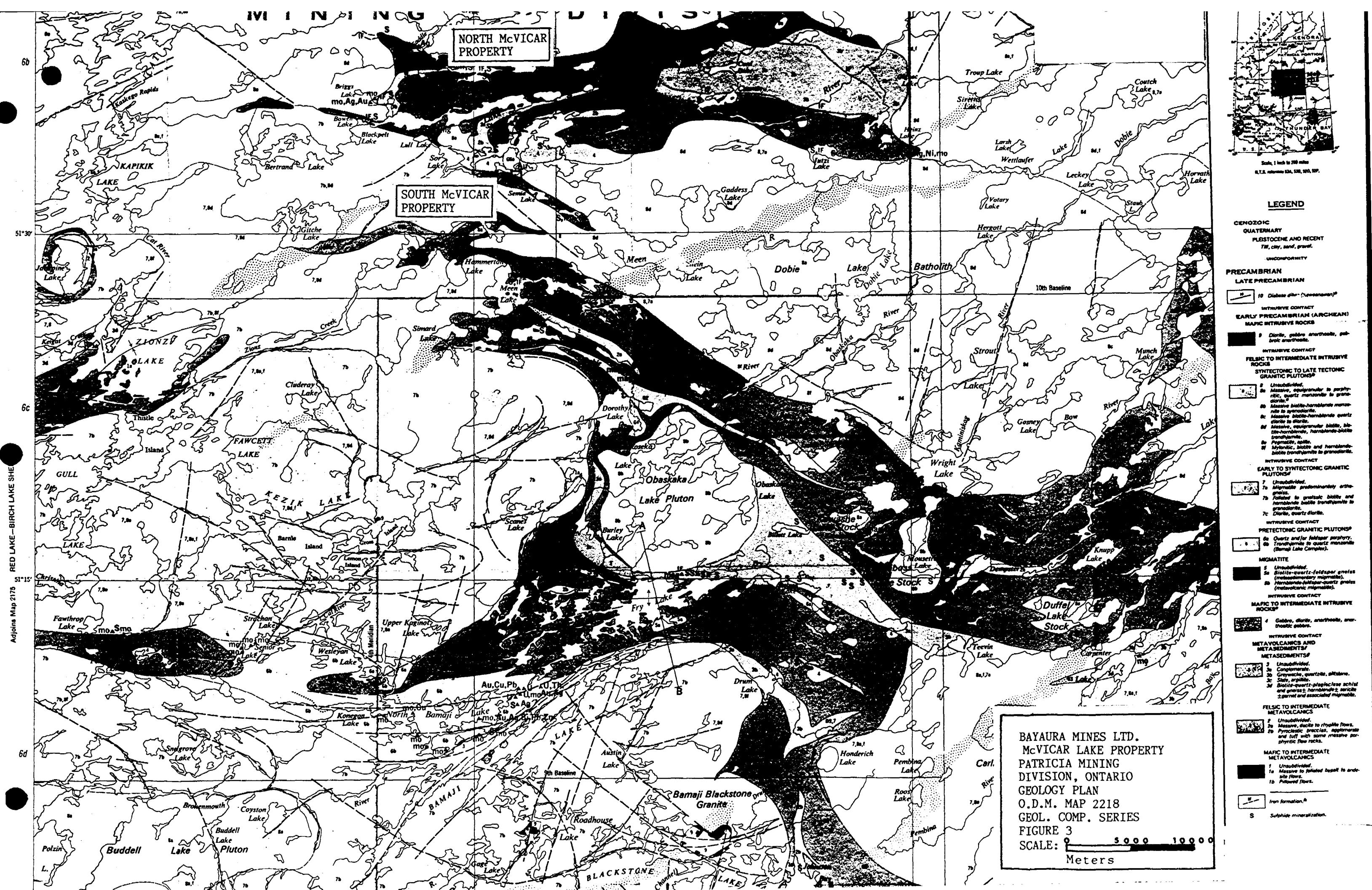
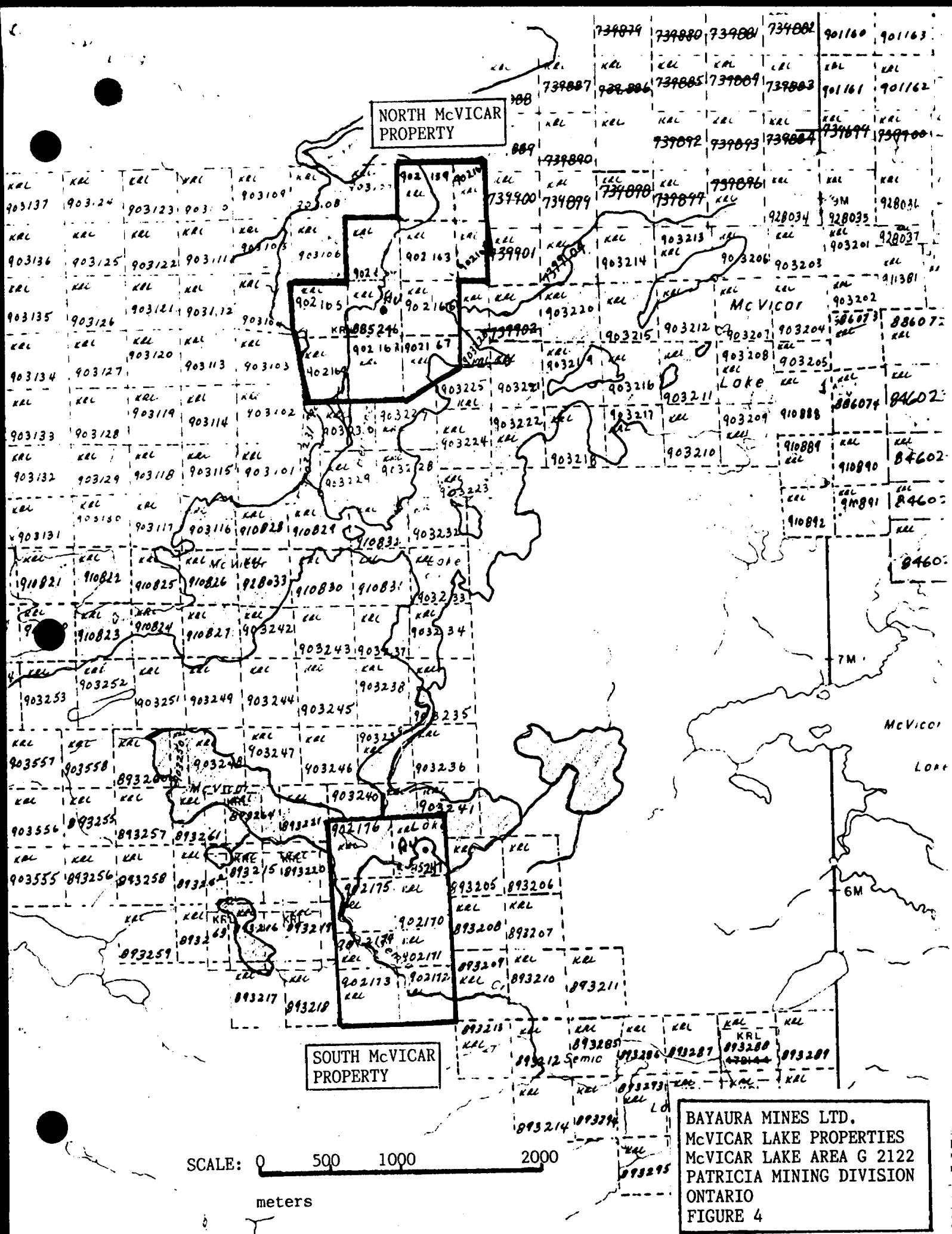


Figure 1



BAYAURA MINES LTD.
McVICAR LAKE PROPERTIES
SIOUX LOOKOUT
MINING DIVISION, ONT.
GENERAL LOCATION MAP
O.D.M. MAP 2310
FIGURE 2





SCALE: 0 500 1000 2000

meters

BAYAURA MINES LTD.
McVICAR LAKE PROPERTIES
McVICAR LAKE AREA G 2122
PATRICIA MINING DIVISION
ONTARIO
FIGURE 4

LANG-CANNON LAKES AREA
(Central Part)DISTRICT OF NIPAWIN
(ONTARIO PORTION)

Scale 1:100,000 1:50,000

SIT Reference: S2 4/11

ON-NIC Average Map 1960

LITHOLOGY

CONTINUOUS
BEDROCK
Lakes, streams and swamp depositsPLACIDIC
Sand, gravel, clay

UNCONFINED

PERMEABLE
PHYSIOGRAPHIC
SedimentationLATE PLACIDIC
SedimentationTYPICAL
Lithosphere (lithosphere)

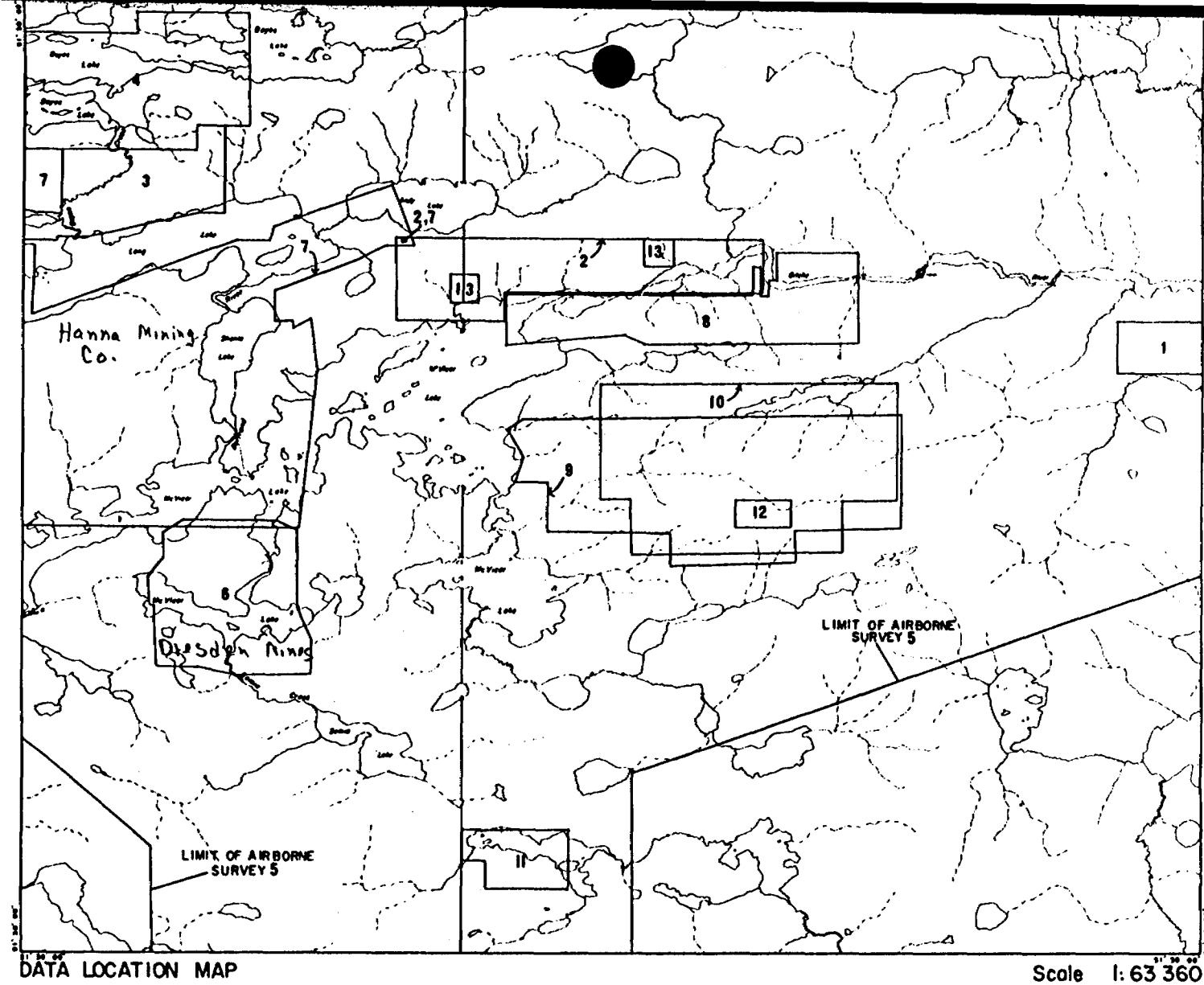
SUBSTRATE (substrate)

Water (water)

UNCONFINED

INTRODUCTIVE
CONTACTINTRODUCTIVE
ROCKSINTRODUCTIVE
ROCKS

INTRODUCTIVE



SOURCES OF INFORMATION

SYMBOLS

- AM — Airborne Magnetometer Anomaly.
- M — Ground Magnetometer Anomaly.
- VEM — Ground Electromagnetometer Anomaly. (VEM - Vertical Loop; HEM - Horizontal Loop; VLF - Very Low Frequency; JEM - Crone EM-16).
- Gc — Geochemical Anomaly.

Compiled by D.A. Panagakos and J.C. Gibson, 1979, from data on file at the Resident Geologist's Office, Ontario Ministry of Natural Resources, Red Lake.

Base-map derived from Forest Resources Inventory map, Lands and Waters Group, Ontario Ministry of Natural Resources.

Lang-Cannon Lakes Area (Central Part), District of Kenora (Patricia Portion); Ontario Department of Mines and Northern Affairs Preliminary Map P.665, Geological Series, by K.G. Fenwick, 1971.

Mining claim sheet M. 2741.

Fig. 6

**DATA FILED WITH THE
RESIDENT GEOLOGIST
ONTARIO MINISTRY
OF NATURAL RESOURCES
RED LAKE**

To March 8, 1979

		TYPE OF WORK														
		GEOLOGICAL	DIAMOND DRILLING	CORE SAMPLES	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETOMETER	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETOMETER	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY	GRAVITY	GEOCHEMICAL	TRENCHING
1	Amax Exploration, Inc (Cannon Lake Group)							70	70							
2	Amax Exploration, Inc (McVicar Lake Group)							70	70							
3	Belore Mines Ltd.	70 71						69	69							71*
4	Card Lake Copper Mines Ltd.	70						70	70							
5	Cominco Ltd.			72												
6	Dresden Mines Ltd.							72	72							
7	Hanna Mining Co., The (McVicar #1 Property)	72						70, 71	70, 71							
8	Hanna Mining Co., The (McVicar #2 Property)	71	71					71	71							71*
9	Kerr Addison Gold Mines Ltd. (Kenlew Option)			59 62				62	62							62*
10	New Jersey Zinc Exploration Co (Canada) Ltd.	71	71					69	69					69	71*	
11	Pickle Patricia Explorers Ltd.	62	62													62*
12	Union Miniere Exploration and Mining Corp Ltd.		73													
13	Union Miniere Exploration and Mining Corp Ltd.		75													
		* Assay Results														
Note: The numbers on the above list stand for the year when the work was done, e.g., 66 for 1966. On the accompanying DATA LOCATION MAP, only areas for which work was submitted to the Ministry are outlined, and thus a company may hold more ground than indicated here. The numbers on the DATA LOCATION MAP and any circled numbers refer to the company above.																

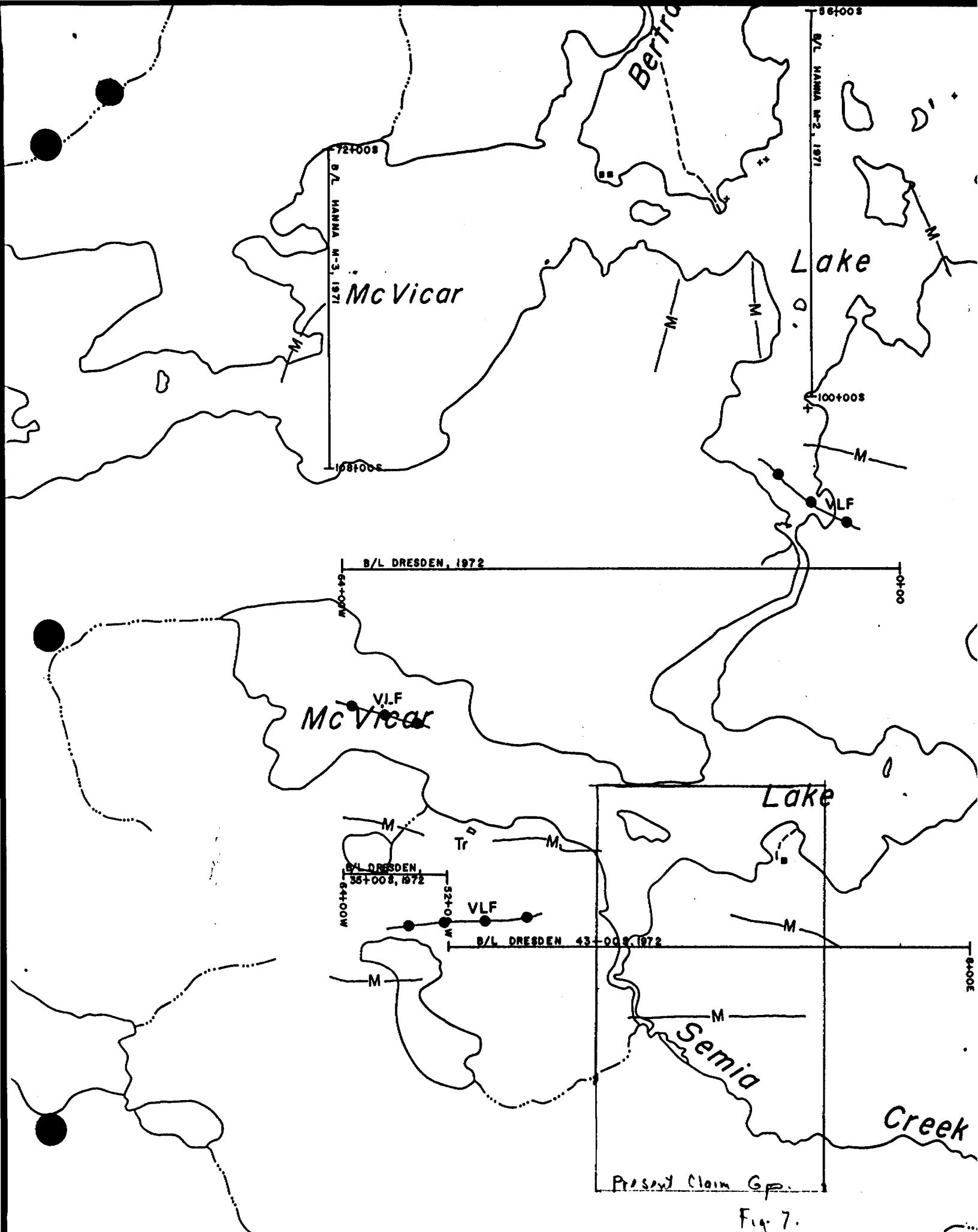
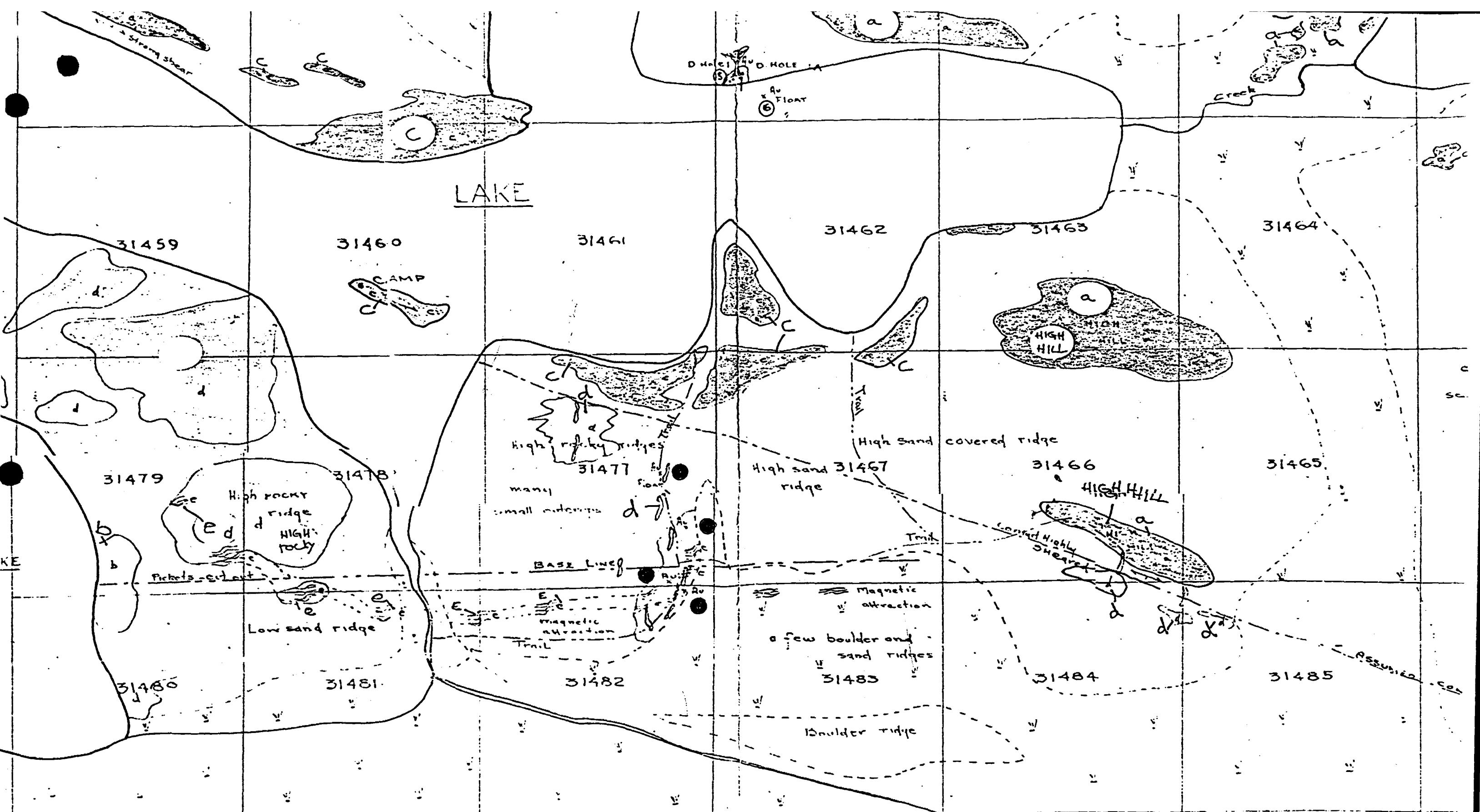


Fig. 7.



CHELLEW GOLDMINES LTD.
 GEOL. PLAN. - 1950
 M. WATTS. 1" = 500'

PART II - GENERAL INFORMATION

2.1 INTRODUCTION

This report has been compiled and written to comply with the special provisions for submitting geophysical surveys for assessment work credit under the Government of Ontario; Mining Act; Section 77 - Report of Work.

Independent Exploration Services Ltd. of Winnipeg conducted a line cutting and geophysical total field magnetometer, gradiometer and VLF-EM Surveys on the South McVicar Lake porperty at the request of Mr. O. Baykal, President of Bayaura Mines Ltd. of Calgary. Field work was conducted during the period of February 29 to March 31, 1988.

The grid consisted of 0.7 km. of base lines and 8.8 km. of cut and chained picket lines. The geophysical survey readings were recorded over 8.8 km. of picket lines.

2.2 DESCRIPTION, LOCATION AND ACCESS TO PROPERTY

The South McVicar Lake claim group is comprised of 8 contiguous unpatented mining claims all located in the McVicar Lake Area (claim map G-2121) in the Patricia Mining Division of Ontario.

The claims are recorded under the following claim numbers: Pa 885247 & Pa 902170 to Pa 902176 incl. (8 claims).

The property is located approximately 100 km. W.N.W. of Pickle Lake and is readily accessible by float/ski equipped aircraft.

2.3 PROPERTY OWNERSHIP

The 8 unpatented mining claims Pa 885247 & Pa 902170 to Pa 902176 incl. were staked and recorded by Mr. Norman Lee of Sioux Lookout. These claims are now recorded in the name of Orhan Baykal, Licence No. S 6939.

The claims are presently on extension and a Report of Work has been filed.

2.4 PHYSIOGRAPHY AND VEGETATION

Glacial erosion scoured the Archean terrain to rolling topography of low relief with softer metavolcanics and metasedimentary areas being generally flatter and lower than the more resistant granitic area. Relief on the claim group probably does not exceed 10 - 15 meters. Much of the area is overlain by a thin mantle of glacial debris. A thin layer of recent organic material post dates the glacial debris. The drainage is generally poor and characterized by acidic bogs and shallow lakes and ponds.

The area is covered by the Boreal Forest with the dominant species of trees being black spruce, minor white spruce, jack pine, birch and poplar. Tog alders and "labrador tea" abound in the low wet areas. Out

crop areas are generally sparse and less than 5% of the total area.
Most abundant exposure generally occurs along shore lines.

2.5 GENERAL GEOLOGY

The property is located in the Canadian Shield, Uchi Geological Belt. The consolidated rocks of the area are Early Precambrian (Archean) in age and comprise a metavolcanic - metasedimentary assemblage which are tightly isoclinally folded and strike roughly N.W. - S.E. direction in the claim group area.

"The Lang-Cannon Lakes area is underlain by metavolcanics and metasediments that form a narrow belt which is approximately 30 miles long and varies in width from 1/4 to 7 miles.

The metavolcanics are predominantly mafic to intermediate lavas, tuff and amphibolite on the north and south sides of the belt and felsic to intermediate lavas and pyroclastic rocks in the central part of the belt.

The metasediments in the vicinity of Cannon and Card Lakes are up to 3 miles wide. They consist of conglomerate, greywacke, argillite, iron formation, and their derived schists and gneisses. The conglomerate band is 35 chains (2,310 feet) wide west of Cannon Lake.

The metavolcanic-metasedimentary belt is completely surrounded and intruded by granitic rocks.

A stock or sill of gabbro, diorite, anorthosite and anorthositic gabbro extends from the east shore of Sor Lake to 3 miles east of McVicar Lake. Inclusions of gabbro and anorthosite have been found in the mafic

metavolcanics, although there is no evidence these are related to the intrusion.

A stock of gabbro and anorthositic gabbro forms a strong oval-shaped magnetic anomaly (ODM-GSC Aeromagnetic Map (904G) in the vicinity of Otoskwin River.

A quartz porphyry stock, thought to be a high level intrusion, is in the central area of McVicar Lake. This stock seems to be related genetically to the felsic pyroclastic rocks in the area.

Drumlins and drumlinoid ridges, striking S70W, are abundant in the area.

Structural Geology: The major structure in the western part of the area is a syncline that trends about N70E and plunges 40E to 60E. The syncline is isoclinal and its axis is located between Boyes and Lang Lakes. Lack of top determinations in the central part of the area has made it necessary to tentatively place the extension of the fold axis through Card Lake.

Two distinct foliations were noted: one closely parallel to primary features such as bedding and volcanic banding, and one trending approximately N30W and dipping steeply. The latter foliation is related to the quartz porphyry intrusion.

Gneissosity is common in the granitic rocks and is generally parallel to the contact with the metavolcanic-metasedimentary rocks.

Several prominent lineaments were noted."

2.6 LOCAL GEOLOGY

The claim group is located on the S.E. extension of the metavolcanic-metasedimentary belt and on the claim group the belt is mapped as being approximately 1000 meters in width and consists of mafic to intermediate volcanic flows and breccias intruded by mafic sills or dikes. The metavolcanic assemblage is bounded by granitic intrusives to the N.E and S.W.

2.7 ECONOMIC GEOLOGY

O.D.M. Assessment File - 520/11 SW - 0038 - B1, #1

A sketch plan drawn up for Chellew Gold Mines Ltd. (1950) indicate 4 gold occurrences in the central portion of the claim group. The nature and the grade of the samples taken are not known but are presumably available in assessment data.

2.8 HISTORY OF EXPLORATION

Prospecting for gold has been carried on in the area since 1928. The original discovery was made on the east side of Shonia Lake. Results there proved disappointing.

Chellew Gold Mines Ltd. (1950) worked the area in the central south bay of McVicar Lake. Extensive surface prospecting was conducted and seven holes were drilled (787 feet). 4 gold showings are reported in the claim group area.

Kenlew Mines Ltd. (1959) worked the area and drilled 5 holes (1175 feet) to the west of the claim group on a copper showing.

Dresden Mines Ltd. (1972) conducted a ground magnetometer and electromagnetic survey in the area that encompasses the present claim group.

No major mineral occurrences are known to exist on the claim group.

PART III - GEOPHYSICAL SURVEY

3.1 INTRODUCTION

Topographic features and a magnetic compass were utilized in locating the grid position. Picket lines were turned off at right angles from the base line at 100 meter intervals utilizing a "turn off" board or "farmer's transit". All lines were cut to line of sight, chained and picketed at 25 meter intervals.

0.7 km. of base lines and 8.8 km. of picket lines were established. Total field magnetometer, gradiometer and VLF-EM readings were taken along all picketed lines at 12.5 meter intervals.

The results of the surveys are presented as follows:

- Map 1). Grid, Property & Topography Map
- Map 2). Total Field Magnetometer Survey - Contoured
- Map 3). Vertical Gradient Magnetic Survey - Contoured
- Map 4). T.F. Magnetic & Gradient Survey - Posted Readings
- Map 5). VLF - EM Survey - Profiles
- Map 6). VLF - EM Survey - In Phase & Quadrature
 - Posted Readings
- Map 7). VLF - EM Survey - Total Field Strength
 - Posted Readings
- Map 8). VLF-EM - Fraser Filter - Contoured
- Map 9). Interpretation Map

3.2 METHODS AND PROCEDURES

An EDA OMNI PLUS geophysical system was employed for the survey. This system is designed to read and record total field magnetometer, gradiometer and VLF-EM data simultaneously at one pass. All total field magnetometric field readings have been corrected for diurnal drift automatically by employing a base station.

Base station readings were taken at 30 second intervals. All field readings are recorded on memory banks and dumped directly into a computer and stored on diskettes. The field data is then edited and final maps are computer generated and plotted with the aid of Geosoft Mapping System.

3.3 DISCUSSION OF RESULTS

The VLF-EM Survey results outlined four weak to moderate electromagnetically conductive trends on the property (designated as Zones A to D). None of these trends are considered to be high priority targets.

The magnetometer survey indicates a strong magnetic expression in the central area of the claim group. It is believed to be the response to gabbroic intrusive.

REFERENCES

Fenwick, K.G.

**1970: - Lang-Cannon Lake Area (Central Portion) District of Kenora
(Patricia Portion); Ontario Dept. Mines Preliminary Map P. 665,
Geological Series.**

Panagapko, D.A. and

Gibson, J.C.

**1980 - McVicar Lake Area, District of Kenora (Patricia Portion)
Ontario Geological Survey Preliminary Map P.2026, Red Lake Data
Series, Scale 1:15840.**

O.G.S. - Assessment File Data

Chillew Mines Ltd.



Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

July 21, 1988

Your file: W8803-162
Our file: 2.11311

Mining Recorder
Ministry of Northern Development and Mines
Court House
P.O. Box 3000
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

Re: Notice of Intent dated July 6, 1988
Geophysical (Electromagnetic & Magnetometer) Survey
submitted on Mining Claims PA 885247 et al
in the Area of McVicar Lake

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, Manager
Mining Lands Section
Mines & Minerals Division

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

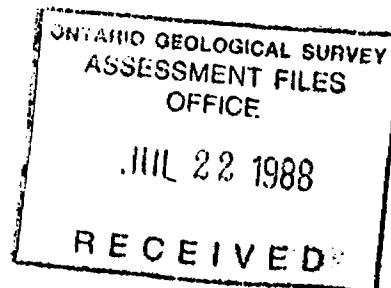
Telephone: (416) 965-4888

AB AB:pl
Enclosure

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

Resident Geologist
Sioux Lookout, Ontario

Mr. Orhan Baykal
Suite 400
805 Eighth Avenue S.W.
Calgary, Alberta
T2P 1H7





Ministry of
Northern Development
and Mines

Technical Assessment
Work Credits

File

2.11311

Date

July 6, 1988

Mining Recorder's Report of
Work No. W8803-162

Recorded Holder

Orhan Baykal

XXXXXX Area

McVicar Lake

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ 40 days	PA 885247
Magnetometer _____ 20 days	902170 to 76 inclusive
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) 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

No Gradiometer credits allowed as the survey was done simultaneously with
the magnetometer survey.

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.

SADDLE LAKE G-2197

STOUGHTON LAKE G-2228

This figure is a world map showing the global oceans with a grid of latitude and longitude lines. Handwritten codes and numbers are overlaid on the map, particularly in the northern and southern hemispheres, indicating specific survey or data collection points. The codes are often contained within rectangular boxes, which likely delineate survey sections or specific study areas. The handwriting is in black ink on a white background.

MEEN LAKE G-2122

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	
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	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

DISPOSITION OF CROWN LANDS

<u>TYPE OF DOCUMENT</u>	<u>SYMBOL</u>
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	
RESERVATION	
CANCELLED	
SAND & GRAVEL	
NOTE	

REF E R E N C E S

AREAS WITHDRAWN FROM DISPOSITION

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



SCALE 1 INCH = 10 CHAINS



185

McVICAR LAKE

M.N.R. ADMINISTRATIVE DISTRICT

SIOUX LOOKOUT

MINING DIVISION

PATRICIA

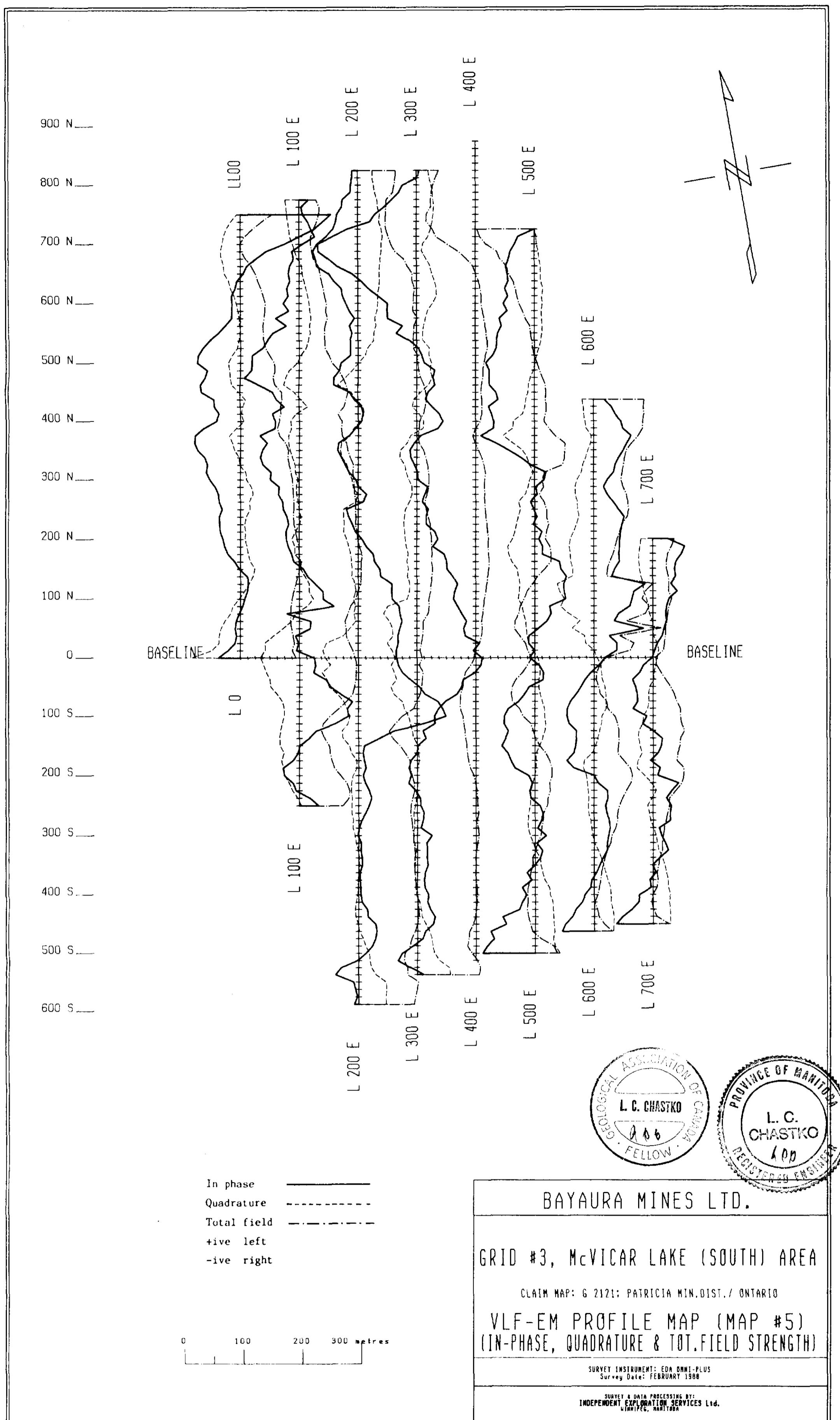


**Ministry of
Natural
Resources**

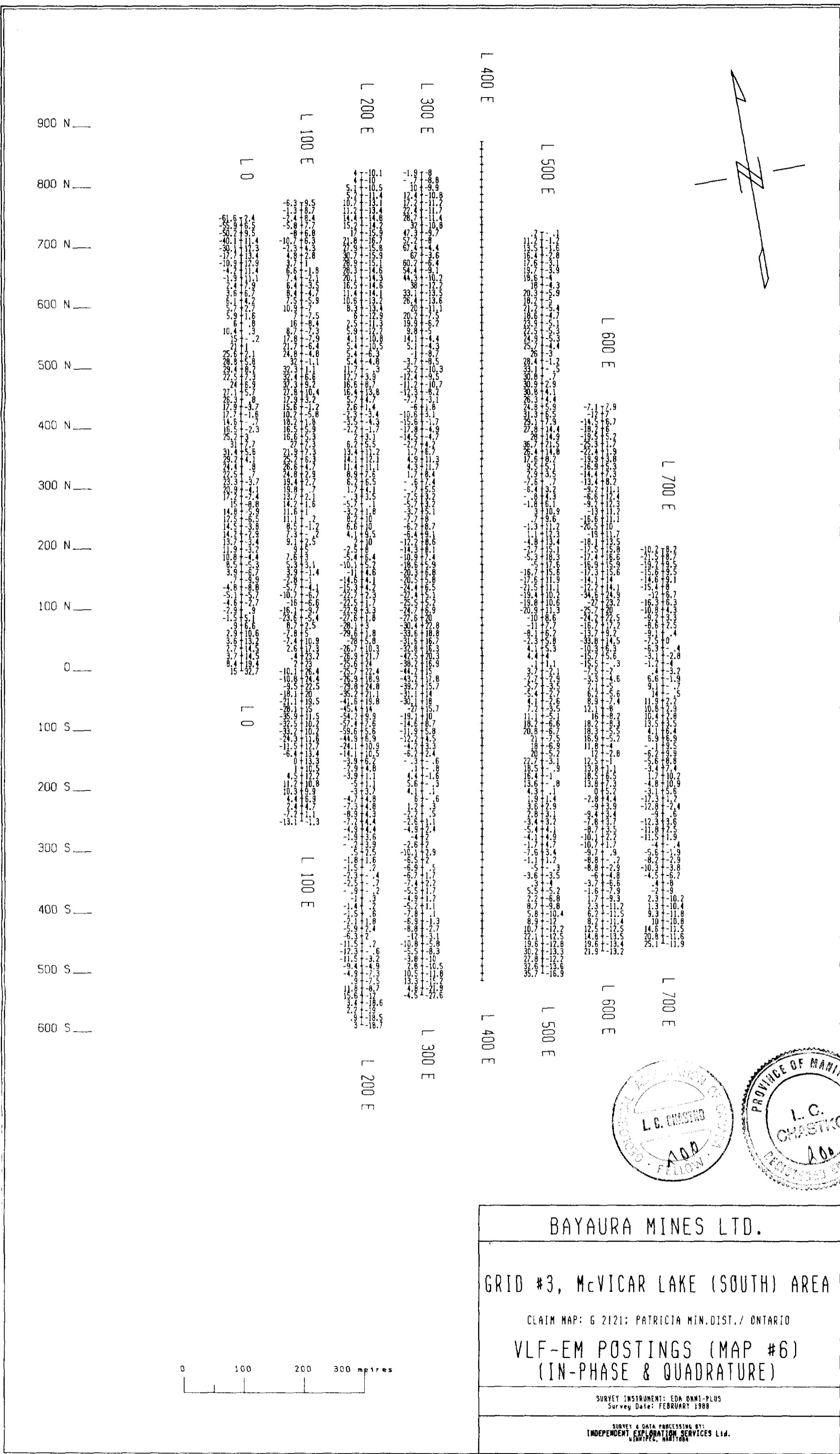
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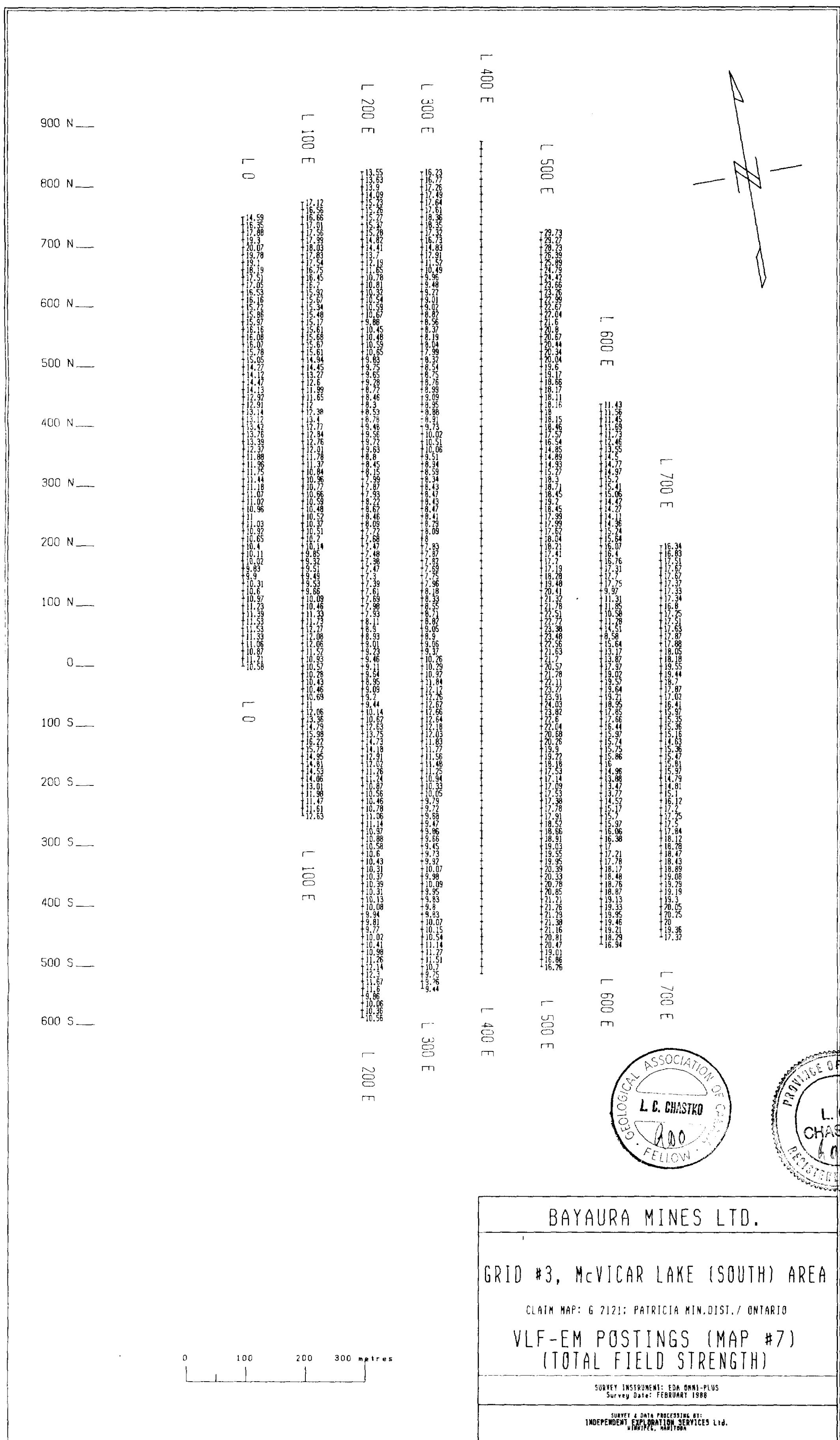
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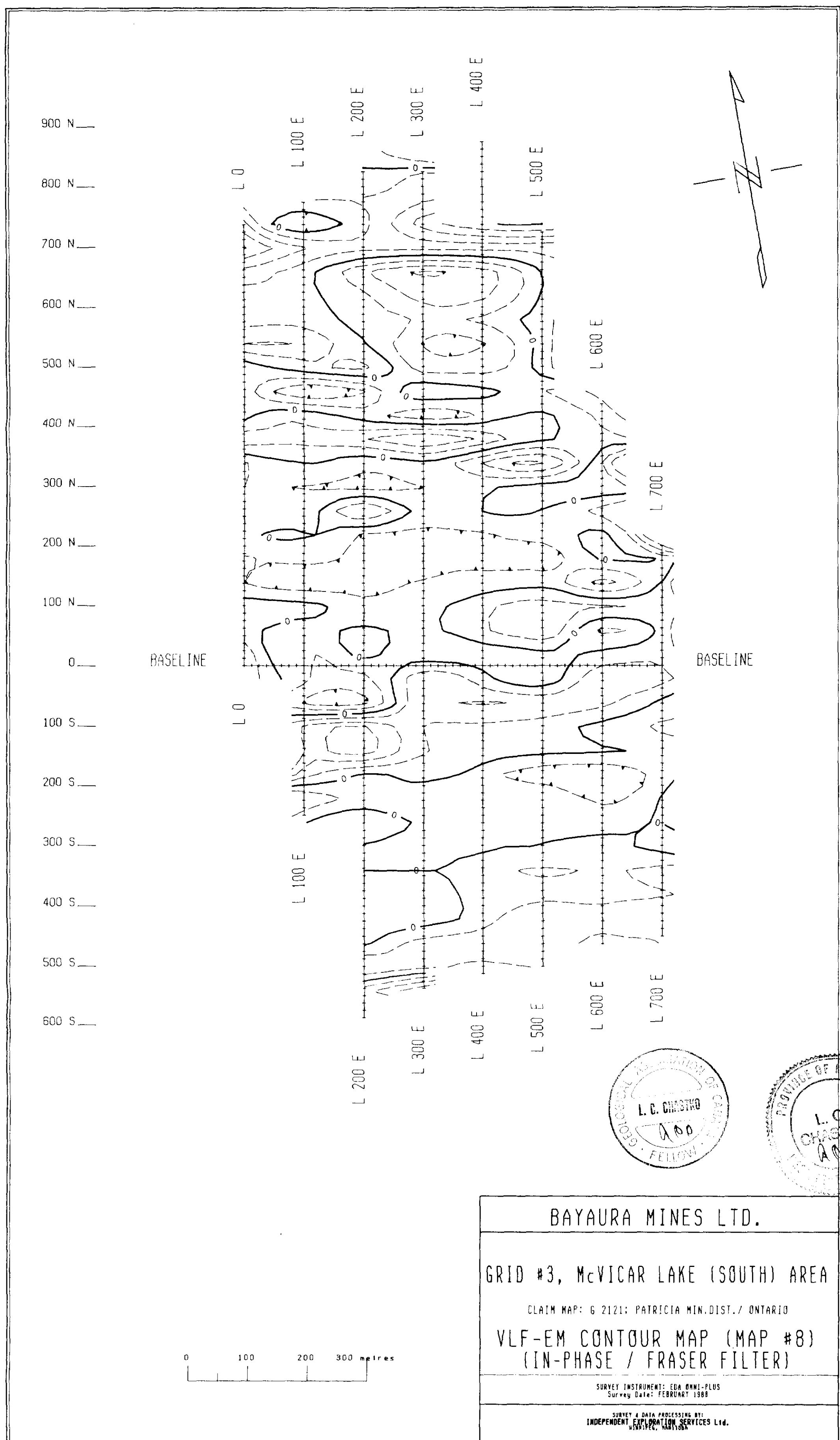
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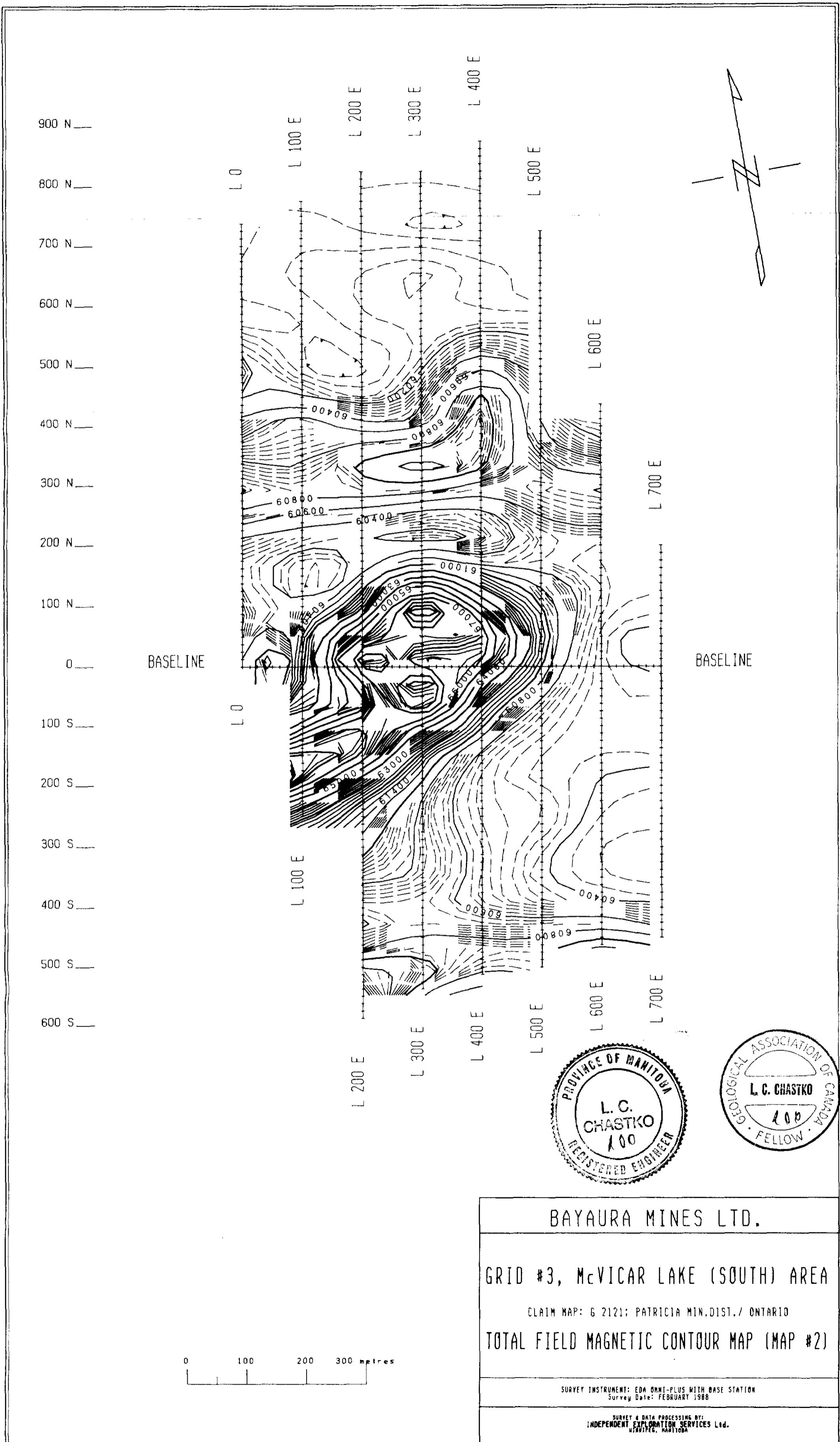


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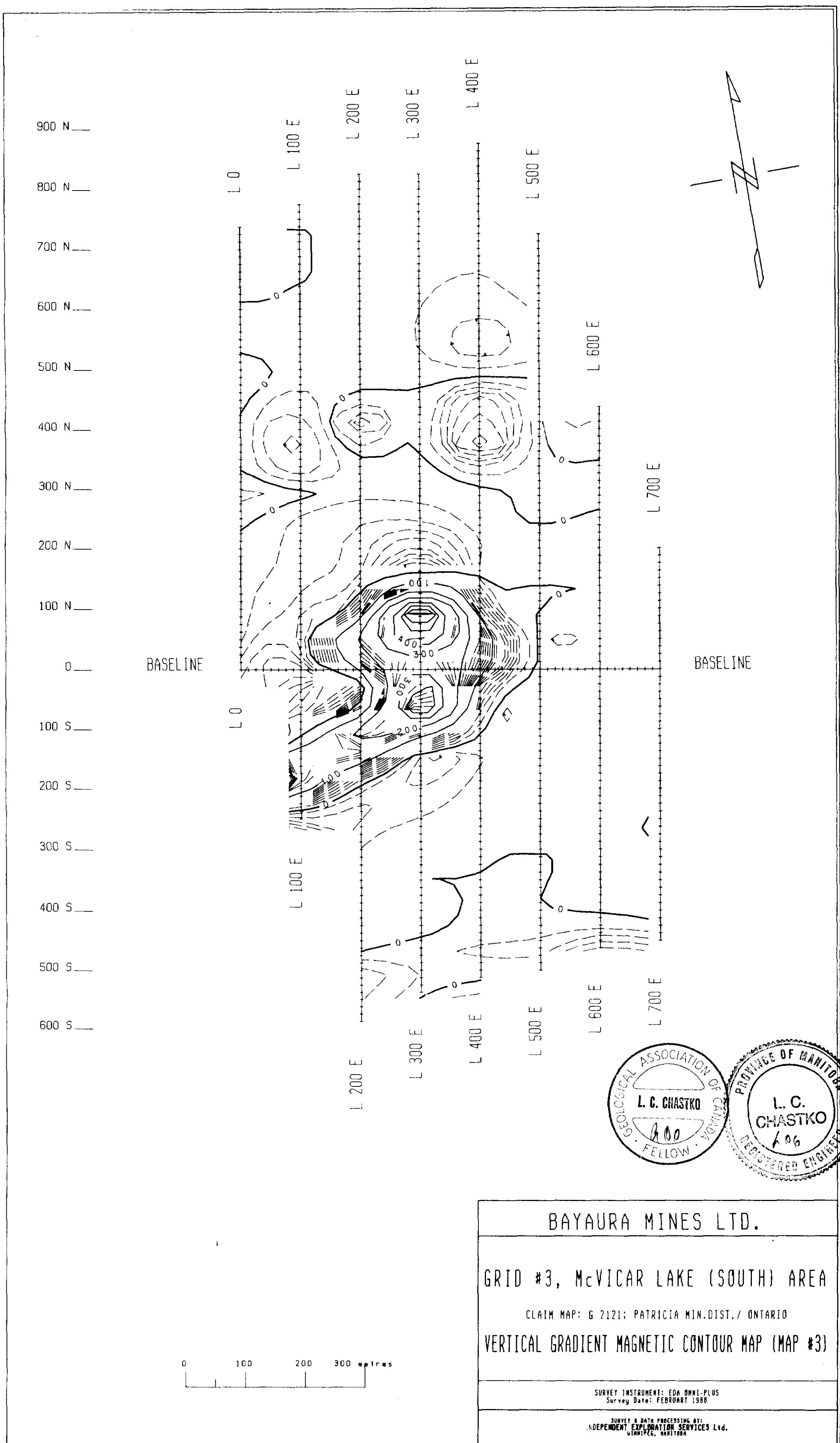






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