



42A08NE0227 2.5372 BARNET

010

BRINCO MINING LTD.
REPORT ON GEOPHYSICAL SURVEYS
BARNET AND THACKERAY TWP.
TILLICUM PROJECT
LARDER LAKE MINING DIVISION
ONTARIO

RECEIVED
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MINING LANDS SECTION

Brinco Document No. P82004
N.T.S. 42 A/8
January 21, 1983

R. W. Woolham
R. W. Woolham
BASC P. Eng.

*Qual
63.1718*



42A08NE0227 2.5372 BARNET

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TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
LOCATION AND ACCESS	1
GEOLOGY	1
SURVEY PARAMETERS	2
MAGNETOMETER	3
ELECTROMAGNETIC	
SOUTH GRID	3,4
RESULTS	5,6
CONCLUSIONS	6
RECOMMENDATIONS	
NORTH GRID	7
RESULTS	8
CONCLUSIONS	9
RECOMMENDATIONS	
CERTIFICATE	

LIST OF MAPS

Scale 1:2 500

NO.	TITLE
P82004-1	Magnetic Values North Grid
P82004-2	Magnetic Contours North Grid
P82004-3	Magnetic Values South Grid
P82004-4	Magnetic Contours South Grid
P82004-5	VLFEM Profiles North Grid, Seattle
P82004-6	VLFEM Profiles North Grid, Annapolis
P82004-7	VLFEM Fraser Filter Contours North Grid, Seattle
P82004-8	VLFEM Profiles South Grid, Seattle
P82004-9	VLFEM Profiles South Grid, Annapolis
P82004-10	VLFEM Fraser Filter Contours South Grid, Seattle
P82004-11	Magnetic Interpretation Map South Grid
APPENDIX I	Technical Data Statement
APPENDIX II	Instrument Specifications

Introduction

The survey area consists of two claim groups. The south claim group contains 12 claims while the north claim group covers a six claim area. The north claim group is approximately 1 200 metres north of the south group. Geophysical surveys involved coverage with a magnetometer and VLF electromagnetic unit. Details and specifications of the surveys are contained in the technical data statement, Appendix I.

Location and Access

The claims lie in the northeast corner of Barnet Township Concession IV lots 1 and 2 and Concession V north half, lot 1. Two claims on the east side of the north group lie in Thackeray Township. Barnet Township is 25 km north of Kirkland Lake.

Access to the claim groups is via highway 101 from Matheson. A logging road on the south side of the highway occurs approximately 19 km east of the Holtyre highway #572 turnoff. From the highway it is approximately 15 km by gravel road to a point approximately 2 km east of the Barnet Thackeray Township boundary, Concession V. Trails lead in to the south claim group a distance of about 3,5 km. A tieline has been cut north along the approximate township boundary to connect with the north claim group.

Geology

The geology of the area and claims is described in a separate assessment report, Brinco Document #G82004 which should be referred to for detailed geological information. The claims are underlain by tholeiitic mafic volcanic flows which are intruded by syenitic rocks. Except for the eastern part of the south claim group rock exposure is very limited.

Previous Work

The last recorded ground exploration work on the property was performed by Dominion Gulf in 1950. This work consisted of trenching, magnetometer surveys, geological mapping and drilling of four holes totalling 615 metres in the south claim group and four holes totalling 618 metres in the vicinity of the north claim groups two of which fall within the survey area.

Survey Parameters

Magnetometer

Two proton magnetometers were used for the survey as a malfunction in one necessitated replacement by a second, half way through the survey. The second instrument was read on selected stations occupied by the first so that an accurate tie-in to the original work was possible. Base stations were established along the baselines of each grid as indicated on the base maps of the magnetometer surveys. Base station survey loops did not exceed two hours in duration. Line spacing was 100 metres and station spacing was 25 metres for the north grid and 12,5 metres for most of the south grid. The total number of stations established was 1 591 and 401 for the south and north grids respectively. Specifications of the instruments are contained in Appendix II.

The corrected magnetic values are plotted on maps #P82004-1,3 at a scale of 1:2500 and the magnetic contour maps are shown on maps P82004-2,4. The contour interval is 200 nanotesla.

Electromagnetic

The VLF electromagnetic survey was read at a 25 metre station interval using two transmitting sources at Seattle, Washington and Annapolis, Maryland. The dip angle of the field was read using a Crone RADEM Unit (see Appendix II for specifications) and values were plotted in profile form on maps P82004-5,8 for the Seattle transmitter and maps P82004-6,9 for the Annapolis transmitter. The results for the Seattle transmitter source were Fraser filtered, plotted and contoured as shown on maps P82004-7,10. All maps are at a scale of 1:2 500.

A total of 833 stations with two readings each were occupied in the south grid and 396 stations on the north grid.

South Grid

Results

Magnetic Survey (Maps P82004-3,4)

Magnetic amplitudes on the property varied between 58 000 nanotesla (nT) and 66 000 nT with a few values below and above these ranges. The south and eastern two-thirds of the grid is dominated by alternating negative and positive narrow linear trends. In the west half of this zone the strike is east west but changes more to an east northeast direction towards the eastern grid boundary. The northern boundary of this high sharp relief zone is marked by a sharp negative zone running from line 105E to 116E. Surrounding these linear trends to the north, west, and southeast the contour pattern broadens becoming very smooth and regular. In the north-west corner of the grid two pseudo-circular features with very smooth broad contours and magnetic amplitudes of over 3 000 nT are present. These two anomalies abruptly end on line 105E and become a much narrower elongated anomaly trending eastward and eventually dissipating to background values on line 113E.

In the southwest corner, the high amplitude linear complex described previously, terminates at 104E and is replaced by a broad negative feature which is enclosed by a circular high amplitude belt to the west. This belt itself is surrounded to the north, west and south by background values. Parts of the negative feature on lines 102E and 103E between 101+50N and 104+50N appear to interfinger with the high amplitude linears zones to the east.

Electromagnetic Survey (Maps P82004-8,9,10)

Generally weak broad dip angle crossover responses were measured by both VLF surveys using Seattle and Annapolis stations. Where sharp gradients did occur, the response was asymmetrical or totalling dipping in one direction as seen in the north central part of the Annapolis results and especially evident in the same region for the Seattle results on lines 105E to 108E at about 109N. The relatively low smooth gradient of the Seattle dip angle responses produces weak Fraser filtered responses throughout the survey grid. Exceptions are the zone mentioned previously which trends from 105E to 111E and a partially detected horizon at the top end of lines 112E to 116E. In spite of the poor coupling of the Annapolis transmitting field direction with features indicated by the Seattle station results, there is a reasonably good correlation between the two responses and their location.

Conclusions

The magnetic survey has defined a great deal of structural and geological information. The high amplitude magnetic linear zones no doubt reflect the high magnetite content of the tholeiitic basalt flows which outcrop in this area. Broader contour patterns probably represent thicker overburden cover especially to the north. The negative amplitude zone boundary to the north may be a later stage mafic flow introduced when the magnetic poles were reversed or more likely the low may only represent non magnetic felsic volcanics or sediments. The broad high amplitude complex in the northwest corner of the grid may be a deep seated intrusive complex or deeply buried mafic flows related to another sequence of geological events.

The pseudo-circular low amplitude to negative zone to the south and west is suspected to be a syenite intrusion. Significant intersections of syenite were encountered in the Dominion Gulf drill holes to the east of this zone. From the noticeable anomaly terminations and interruptions there appears to be numerous cross cutting fold and fault structures within the mafic flow complex. The most striking cross cutting feature occurs between lines 103E and 104E and appears to correlate with severe magnetic anomaly interruptions and amplitude changes. This major break is associated with:

- (a) the boundary between the mafic volcanics and postulated syenite body between lines 103E and 104E from 101+50N to 103+50N,
- (b) a possible displacement of the magnetic expression of the syenite itself, and
- (c) the abrupt change in amplitude and dual anomaly characteristics of the feature in the northwest corner of the grid. The structural interpretation of the magnetic survey is shown in map P82004-11.

The VLF surveys failed to specifically identify any conductive features that may be related to the geological structures as indicated by the magnetic interpretation map. The higher amplitude VLF responses generally appeared to be sub-parallel to the geological strike. The asymmetrical nature of most of the stronger responses and the fact that these responses occurred for both transmitter directions at right angles to each other, suggests that conductive overburden or topography may be contributing to the VLF responses.

Recommendations

Known associations of gold occurrences with syenite intruded mafic volcanics coupled with assayable gold values in two of the holes drilled by Dominion Gulf, suggests that this grid area warrants further investigation. Based on the magnetic information, the prime target zone is in the region of 103+50E from 101+50N to 104N. Here, the magnetics suggest that the syenite complex to the west is intruding the mafic flow structures trending from the east. The relationship and significance of the interpreted fault, which is also present in this region, to potential ore emplacement is unknown. Detailed magnetic surveys are suggested in the region of the interpreted syenite complex as an aid to further geological investigations.

North Grid

Results

Magnetic Survey (Maps P82004-1,2)

The magnetic amplitudes on this grid vary from about 58 500 nT to 60 500 nT. The north two-thirds of the grid is magnetically flat except for a weak linear magnetic dual complex trending north northwest from about 113+50E at 131N to the top end of line 111E at 136N. This feature marks a change in background from about 58 600 nT on the west side to 59 200 nT on the east side of the feature.

The extreme southern portion of the grid contains a series of narrow linear high amplitude anomalies trending east northeast which are intersected by the north northwest feature described previously.

Electromagnetic Survey (Maps P82004-5,6,7)

The VLF survey results using both Seattle and Annapolis transmitters are much the same as encountered on the south grid characterized by broad slowly varying dip effects with asymmetrical crossover responses. An exception occurs for some of the results of the Seattle station source as seen on the Fraser filter maps P82004-7. A very high amplitude maximum response of 74 is present on line 113E at 130N. The response weakens east and west of this line forming a semi arcuate shape. A weaker conductor axis is also present to the north and parallel to this zone running from line 119E at 130+50N to line 112E at 132+50N. Other weak but significant anomalies occur on lines 118E/119E at 133N, 117E at 128+50N, 115E at 135+50N and 110E at 131N. In a general sense most of the conductive responses occur east of the north northwest magnetic lineament described previously and/or in association with the high amplitude magnetic zone to the south.

Conclusions

A major fault or contact zone trending north northwest appears to dominate the regional magnetics. Some narrow dykes may also be associated with this "contact". Most of the conductors as outlined by the VLF survey, occur east of this zone. The lower magnetic area to the west may reflect a felsic intrusive source. The higher narrow linear magnetic zones at the extreme south edge of the grid probably relate to more mafic volcanic flows. Some of the VLF responses are associated with drainage features and the highest amplitude anomaly is coincident with a beaver pond and wide meadow. Lack of similar associations with surface features in the west half of the grid however, suggests that most of the VLF features may relate to bedrock contacts or shear/fault sources. The relationships of the VLF conductor axes and the magnetic anomaly amplitude and shape characteristics further supports bedrock source effects.

Two drill holes by Dominion Gulf collared at approximately 113E at 129+25N (hole #2) and 112+50E at 131+75N (hole #1) bearing grid north encountered mafic volcanics, syenite and felsic intrusives. Hole #1 also encountered diabase. This latter intersection supports the suggestion of dyke sources causing part of the north northwest trend response in the vicinity of hole #1. Hole #2 intersects a local magnetic low area which may represent the syenite encountered in the hole. The borehole also tests the strong VLF anomaly on line 113E. Unfortunately detailed logs of the hole are not available to check if the EM anomaly is related to a major fault or shear zone.

Recommendations

The anomalous areas of possible interest have been tested by two boreholes. Unfortunately detailed information and assays from these holes are not presently available. Further investigation of this area is probably warranted if additional work recommended for the south grid is performed. Detailed magnetic surveys along the north northwest "contact" horizon is suggested especially in the vicinity of the previous boreholes.

CERTIFICATE

I, Roderick W. Woolham of the town of Pickering, Province of Ontario, do hereby certify;

- 1) That I am a geophysicist and reside at 1463 Fieldlight Blvd., Pickering, Ontario, L1V 2S3.
- 2) That I graduated from the University of Toronto in 1961 with a degree of Bachelor of Applied Science, Engineering Physics, Geophysics Option.
- 3) That I am a member of the Association of Professional Engineers of the Province of Ontario (Mining Branch).
- 4) That I have been practicing my profession for a period of more than 20 years.
- 5) That I am retained by Brinco Mining Limited.
- 6) That I personally was involved with the technical supervision of the survey and wrote the report.

Date

Jan 21 / 83

R. W. Woolham
R. W. Woolham
B.A.Sc. P. Eng.





Ontario

Ministry of Natural Resources

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

File _____

Appendix I

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 and Electromagnetic
Township or Area Barnet, Thackeray
Claim Holder(s) Brinco Mining Ltd.

Survey Company Hill, Goettler, De Laporte Ltd.
Author of Report R. W. Woolham P. Eng.
Address of Author 20 King St. West, Toronto, Ont. M5H 1C4
Covering Dates of Survey May 21, 1982 to June 16, 1982
(linecutting to office)
Total Miles of Line Cut 32.7 Kilometres

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

636987

636988

636989

636990

636991

636992

636995

636996

636997

636998

636999

637000

637001

637004

637005

637006

637007

637024

TOTAL CLAIMS 18

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

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

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

ENTER 20 days for each
additional survey using
same grid.

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

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

DATE: Jan 21 / 83 SIGNATURE: R. W. Woolham
Author of Report or Agent

Res. Geol. _____ Qualifications G3.1718

Previous Surveys

File No.	Type	Date	Claim Holder

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations Mag 1992, VLF1229 Number of Readings Mag 1992, VLF2458

Station interval 12.5 to 25 metres Line spacing 100 metres

Profile scale 1 cm = 10°

Contour interval 100 and 200 for Mag, VLF Fraser Filter = 10

Instrument Total Field (See Appendix II for Details)

Accuracy - Scale constant _____

Diurnal correction method Base Station tie-ins

Base Station check-in interval (hours) 1.5

Base Station location and value On Baselines as shown on P82004-1 and P82004-3 value maps.

Instrument VLF (See Appendix II for Details)

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency Annapolis, MD: and Seattle, Washington
(specify V.L.F. station)

Parameters measured Dip angle of secondary field

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 _____

MAGNETIC

ELECTROMAGNETIC

GRAVITY

RESISTIVITY

INDUCTION

APPENDIX 2

INSTRUMENT SPECIFICATIONS



SCINTREX

Proton Precession Magnetometer for Portable or Base Station Use

MP-2

features

- High resolution
- Low power consumption
- Rugged and reliable
- Light weight
- Easy to use
- Automatic recycling
- Remote triggering
- Interfacing to base station recorder
- Analogue or digital output
- Noise cancelling
- Dual coil sensor
- CMOS components
- Optically polarized reflector
- Light emitting diodes
- Solid state reliability
- Bright sunlight readability

The MP-2 is a portable one gamma proton precession magnetometer for field survey or base station use. The optimized design of sensor and circuitry using the latest CMOS components has resulted in a very light weight, low power consumption, rugged and reliable magnetometer.

Light emitting diodes coupled with an ingenious optically polarized reflector combine solid state reliability with easy reading even in bright sunlight.

A standard automatic recycling feature allows ready use of the MP-2, with suitable (optional) interfacing, as a base station recorder in analogue or digital form. Alternatively, a remote trigger can be used.

The noise-cancelling dual-coil sensor and electronics have been so designed as to effectively eliminate reading problems due to virtually all magnetic gradients which may be encountered in field survey conditions.



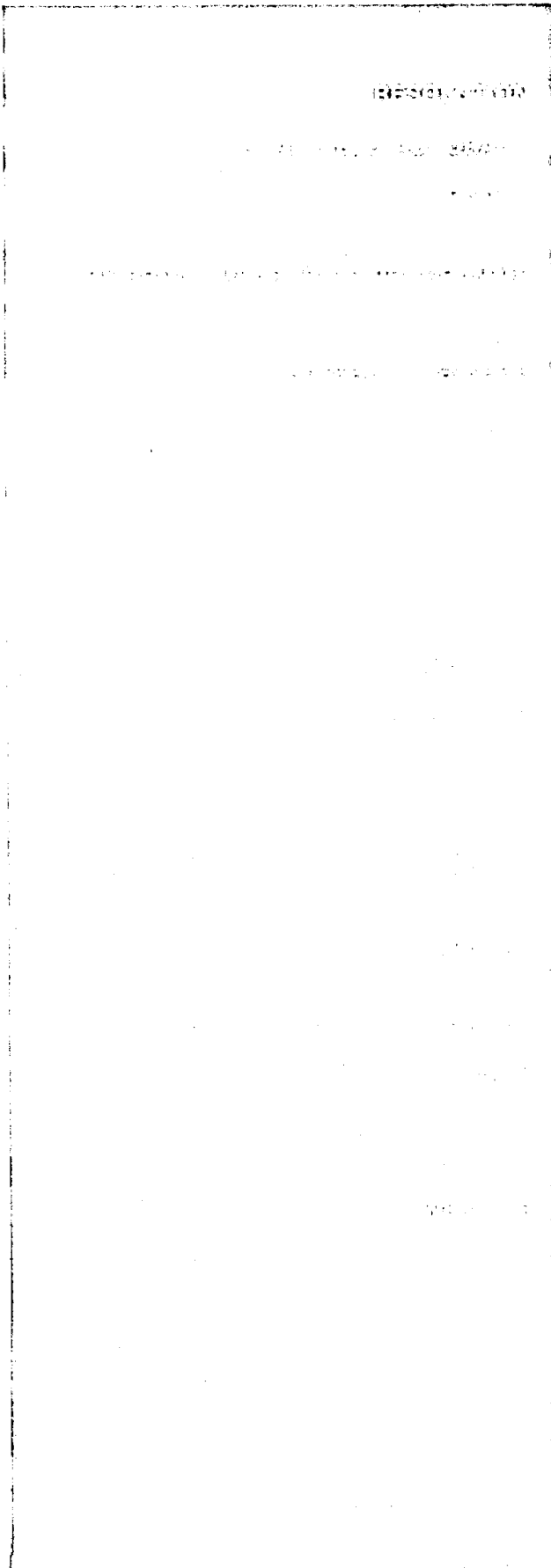
SCINTREX

a world of discovery

**TECHNICAL
DESCRIPTION OF
MP-2
MAGNETOMETER**



SCINTREX



1 Gamma.

± 1 Gamma over full operating range.

20,000 to 100,000 gammas in 25 overlapping steps.

Single reading — 3.7 seconds. Recycling feature permits automatic repetitive readings at 3.7 seconds intervals.

External trigger input permits use of sampling intervals longer than 3.7 seconds.

5 digit LED (Light Emitting Diode) readout displaying total magnetic field in gammas or normalized battery voltage.

Multiplied precession frequency and gate time outputs for base-station recording using interfacing optionally available from Scintrex.

Up to 5000 gammas/metre.

8 alkaline "D" cells provide up to 25,000 readings at 25° C under reasonable signal/noise conditions (less at lower temperatures). Premium carbon-zinc cells provide about 40% of this number.

Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.

Complete for operation with staff or back pack sensor.

-35°C to +60°C.

Console, with batteries: 80 x 160 x 250mm.
Sensor: 80 x 150mm.
Staff: 30 x 1550mm. (extended)
30 x 600 mm. (collapsed)

Console, with batteries: 1.8kg.
Sensor: 1.3kg.
Staff: 0.6kg.

SCINTREX LIMITED
222 Snidercroft Road,
Concord, Ontario, Canada L4K 1B5
TELEPHONE (416) 669-2280, TELEX 06-964570

geometrics

Remote Sensing and
Interpretation

PORTABLE PROTON MAGNETOMETER MODEL G-816

Photo/Price Sheet

~~XXXXXXXXXX~~

June 1974



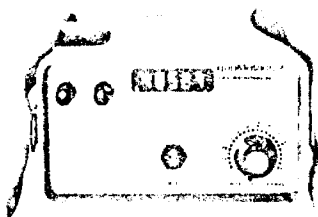
- ★ ~~XXXX~~ complete \$2600
- ★ 1 gamma sensitivity and repeatability
- ★ Very small size and weight: less than 12 lbs complete with battery and sensor
- ★ Over 10,000 readings per set of alkaline "D" cell (flashlight) batteries
- ★ Simplified operation—numeric display directly in gammas
- ★ Total field measurements—no calibration—-independent of orientation

The Model G-816 is a complete portable magnetometer for all man-carry field applications. As an accurate yet simple to operate instrument, it features an outstanding combination of one gamma sensitivity and repeatability, compact size and weight, operation on standard universally available flashlight batteries, ruggedized packaging and very low price.

The G-816 magnetometer allows precise mapping of very small or large amplitude anomalies for ground geophysical surveys, or for detail follow-up to aeromagnetic reconnaissance surveys. It is a rugged, light-weight, and versatile instrument, equally well suited for field studies in geophysics, research programs or other magnetic mapping application where low cost, dependable operation and accurate measurements are required.

For marine, airborne or ground recording systems consider GeoMetrics Models G-801, G-803, and G-806.

SPECIFICATIONS



Based upon the principle of nuclear precession (proton) the G-816 offers absolute drift-free measurements of the total field directly in gammas. (The Proton precession method is the official recognized standard for measurement of the earth's magnetic field.) Operation is worldwide with one gamma sensitivity and repeatability maintained throughout the range. There is no temperature drift, no set-up or leveling required, and no adjustment for orientation, field polarity, or arbitrary reference levels. Operation is very simple with no prior training required. Only 6 seconds are required to obtain a measurement which is always correct to one gamma, regardless of operator experience. Only the Proton Magnetometer offers such repeatability—an important consideration even for 10 gamma survey resolution.

Sensitivity: ±1 gamma throughout range

Range: 20,000 to 90,000 gammas (worldwide)

Tuning: Multi-position switch with signal amplitude indicator light on display

Gradient Tolerance: Exceeds 150 gammas/ft

Sampling Rate: Manual push-button, one reading each 6 seconds

Output: 5 digit numeric display with readout directly in gammas

Power Requirements: Twelve self-contained 1.5 volt "D" cell, universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.

Battery Type	Number of Readings	
Alkaline	over	10,000
Premium Carbon Zinc	over	4,000
Standard Flashlight	over	1,500

NOTE: Battery life decreases with temperature

Temperature Range: Console and sensor: -40° to +85°C
 Battery Pack: 0° to +50°C (limited use to -15°C; lower temperature operation—optional)

Accuracy (Total Field): ±1 gamma through 0° to 50°C temperature range

Sensor: High signal, noise cancelling, interchangeably mounted on separate staff or attached to carrying harness

Size: Console: 3.5 x 7 x 10.5 inches (9 x 18 x 27 cm)
 Sensor: 4.5 x 6 inches (11 x 15 cm)
 Staff: 1 inch diameter x 8 ft length (3 cm x 2.44 m)

Weight:	Lbs.	Kgs.
Console (w/batteries):	5.5	2.4
Sensor & signal cable:	4	1.8
Aluminum staff:	2	0.9
	<u>11.5</u>	<u>5.1</u>

PRICE: Complete Field System \$2600.00 . . . ~~\$3300.00~~X



Complete Field Portable System

The Model G-816 comes complete, ready for portable field operation and consists of:

1. Electronics console with internally mounted and easily replaced "D" cell battery pack.
2. Proton sensor and signal cable for attachment to carrying strap or staff.
3. Adjustable carrying strap.
4. 8 foot collapsible staff.
5. Instruction manual, complete set of spare batteries, reusable shipping container.

All magnetometers and parts are covered by a one year warranty beginning with the date of receipt but not to exceed fifteen months from the shipping date.

EXPLORANIUM

CORPORATION OF CANADA
 48 ALNESS STREET • DOWNSVIEW, (TORONTO) CANADA
 TELEPHONE: 661-1966 (AREA CODE 416)

DIVISION OF **geoMetrics** SERVICES (CANADA) LTD.

NUCLEAR INSTRUMENT DIVISION

CABLE: EXPLOR

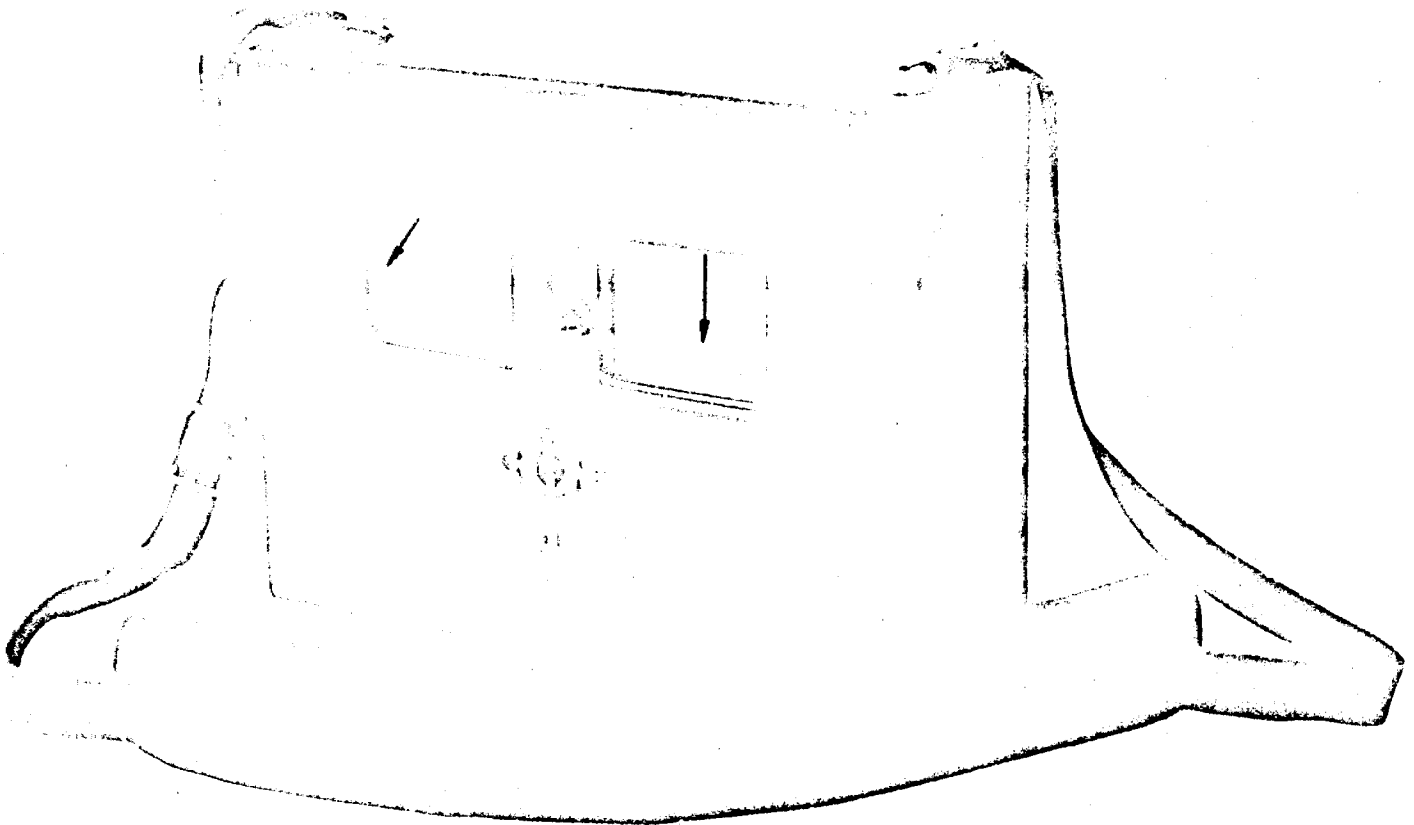
TELEX: 06-22694

CRONE GEOPHYSICS LIMITED

979 LAKESHORE ROAD E.
PORT CREDIT, ONTARIO
CANADA

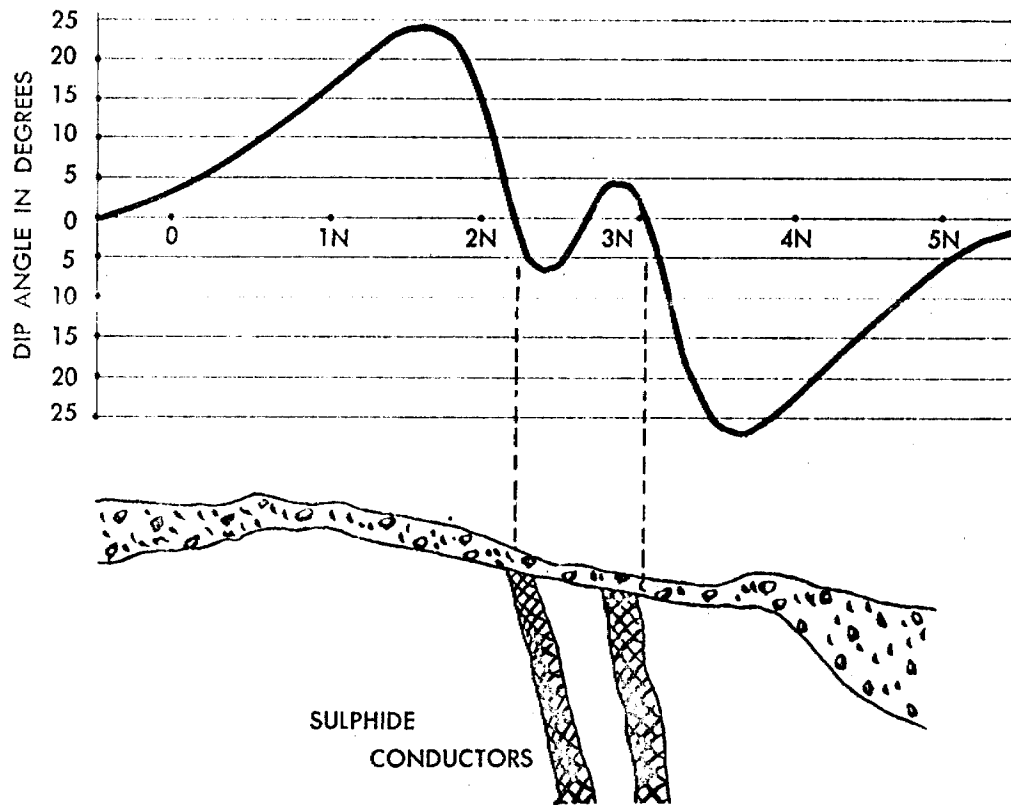
Phone: 274-3704

An EM Radio Receiver Utilizing The 12
to 24 Kilocycle United States Naval
Communications Broadcast Stations



This is a rugged, simple to operate, ONE MAN EM unit. It can be used without line cutting and is thus ideally suited for GROUND LOCATION OF AIRBORNE CONDUCTORS and the CHECKING OUT OF MINERAL SHOWINGS. This instrument utilizes higher than normal EM frequencies and is capable of detecting DISSEMINATED SULPHIDE DEPOSITS and SMALL SULPHIDE BODIES. It accurately isolates BANDED CONDUCTORS and operates through areas of HIGH HYDRO NOISE. The method is capable of deep penetration but due to the high frequency used it is affected by clay and conductive overburden. Anomalies detected in such areas should be checked with other methods before drilling.

Example of a RADEM traverse over a Banded Conductor in the Timmins area of Ontario.



SPECIFICATIONS

- READOUT** — Dip angle of resultant VLF magnetic field component from an inclinometer of $\pm \frac{1}{2}$ degree sensitivity
- NULL INDICATOR** — Both audio (loudspeaker) and visual by means of an averaging field strength meter
- TUNING** — Preset switch tuning
- BATTERIES** — 2 of 9 volt Eveready # 216, independent test indicators
- STATIONS** — Standard 5 stations — Cutler, Maine 17.8; Seattle, Wash. 18.6; Ft. Collins, Colorado 20.0; Annapolis, Md. 21.4; Balboa, Panama 24.0 KCs.
 — Optional — N.W. Cape, Australia 15.5; Lualualei, Hawaii 23.4; Rugby, England 16.0 KCs.
 Other stations as they become operational
- WEIGHT** — Receiver — 4 lb. Leather Case — 2 lb. Shipping Weight — 15 lb.

PRICE — \$2,250.00 Canadian

RENTAL — \$150.00 per month



Type of Survey(s) **Geophysical** 900

Claim Holder **Brinco Mining Limited** *add to Burgoyne (Vancouver)* Prospector's Licence No. T 529

Address **20 King St. W., Toronto, Ont., M5H 1C4**

Survey Company **Hill, Goettler, De Laporte Ltd.** Date of Survey (from & to) 21 5 82 | 16 6 82 Total Miles of line Cut 32.7 km

Name and Address of Author (of Geo-Technical report) **R. Woolham, 20 King St. W., Toronto, Ont., M5H 1C4**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geological	
	Geochemical	
	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	636987				
	636988				
	636989				
	636990				
	636991				
	636992				
	636995				
	636996				
	636997				
	636998				
	636999				
	637000				
	637001				
	637004				
	637005				
	637006				
	637007				
	637024				

RECEIVED
 DEC 14 1982
 MINING LANDS SECTION

LARDEE LAKE
 MINING DIV.
RECEIVED
 DEC 6 1982
 AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

See revised work statement.

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.

Total number of mining claims covered by this report of work. **18**

For Office Use Only

Total Days Cr. Recorded **1080** Date Recorded **DEC 6 1982** Mining Recorder *[Signature]*

Date Approved as Recorded *[Signature]* Branch Director *[Signature]*

Date **Dec. 2/82** Recorded Holder or Agent (Signature) *R. Woolham*

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 **R. W. Woolham, 20 King St. W., Toronto, Ont. M5H 1C4**

Date Certified **Dec. 2/82** Certified by (Signature) *R. Woolham P. Eng.*



May 24/83

File 2.5372

Mining Lands Comments

- V.L.F. maps need raw values.

To: Geophysics Mr. Barlow

Comments

Need raw VLF data

Approved

Wish to see again with corrections

Date

July 26/83

Signature

Douglas H. Pritchard

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

L.D.

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)



Mining Lands Comments

You wanted to see this file again

To: Geophysics *R. Barlow.*

Comments

Approved

Wish to see again with corrections

Date

Sept 21 / 83

Signature

R. Barlow

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

L.D.

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)



Ontario

Ministry of Natural Resources

Technical Assessment Work Credits

File 2.5372

Date 1983 10 20

Mining Recorder's Report of Work No. 417

Recorded Holder
BRINCO MINING LIMITED

Township or Area
BARNET AND THACKERAY

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ 40 days Magnetometer _____ 20 days 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 checked="" 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.	L 636987 to 89 inclusive 636995 to 7001 inclusive 637004 to 07 inclusive 637024

Special credits under section 77 (16) for the following mining claims

20 DAYS ELECTROMAGNETIC AND 10 DAYS MAGNETOMETER

L 636990 to 92 inclusive

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 77 (19)—60:

417

1983 11 15

2.5372

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2H 1A2

Dear Sir:

RE: Geophysical (Electromagnetic & Magnetometer) Survey
on Mining Claims L 636987 et al in the Townships of
Barnet and Thackeray

The Geophysical (Electromagnetic & Magnetometer) Survey assessment work credits as listed with my Notice of Intent dated October 20, 1983 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 6643
Queen's Park
Toronto, Ontario
M7A 1W3

Phone: 416/965-1380

cc:
Brinco Mining Limited
20 King Street West
Toronto, Ontario
M5H 1C4

cc:
Resident Geologist
Kirkland Lake, Ontario

cc: Brinco Mining Limited
20 King Street West
Toronto, Ontario
M5H 1C4

D. Kinviq:sc



Nov. 10/83

Your file: 417

Our file: 2.5372

1983 10 20

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

D. Kinvig:mc

Encls:

cc: Brinco Mining Limited
20 King Street West
Toronto, Ontario
M5H 1C4

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



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1983 10 20

2.5372 / 417

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



MINING LIMITED

20 KING STREET WEST, TORONTO, ONTARIO M5H 1C4

RECEIVED	
Land Management Branch	TELEPHONE: (416) 868-8970
CIRCULATE <input type="checkbox"/>	NIGHT LINE NO. 868-
COMMENTS PLEASE <input type="checkbox"/>	TELEX NO. 065-24689
BY	
AUG 19 1983	
E. F. ANDERSON	
J. R. MORTON	
J. C. SMITH ✓	
G. SHEKMAN	
J. M. SMALL	
RETURN TO R. 6450	

August 18, 1983

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

Dear Sir:

Re: Your file 2.5372 and letter of August 8, 1983

Please find enclosed VLF EM maps with additional values as requested. All further correspondence should be directed to Mr. A. Burgoyne in Vancouver.

Yours truly,

R. W. Woolham, P. Eng.

RWW/ml

Enclosures

c.c. Mr. A. Burgoyne
 704 - 602 West Hastings Street
 Vancouver, British Columbia
 V6B 1P2

RECEIVED

AUG 19 1983

MINING LANDS SECTION

#417

August 8, 1983

2.5372

Brinco Mining Limited
20 King Street West
Toronto, Ontario
M5H 1C4

Attention: Mr. R. Woolham

Dear Sir:

RE: Geophysical (Electromagnetic and Magnetometer) Survey
submitted on Mining Claims L 636987 et al in the
Townships of Barnet and Thackeray

Enclosed are the VLF Electromagnetic profile plans, in
duplicate. Please show the actual readings at each station,
and return all the maps to this office.

For further information, please contact Mr. F.W. Matthews at
(416)965-1380.

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

Encl.

cc: Mining Recorder
Kirkland Lake, Ontario

15
They will
it will

417

1983 02 10

2.5372

Mining REcorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical
(Electromagnetic & Magnetometer) Survey submitted under
Special Provisions (credit for Performance and Coverage)
on Mining Claims L 636987 et al in the Townships of
Barnet and Thackeray.

This material will be examined and assessed 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: Brinco Mining Limited
20 King Street West
Toronto, Ontario
M5H 1C4
Attn: R. Woolham.



MINING LIMITED

20 KING STREET WEST, TORONTO, ONTARIO M5H 1C4

TELEPHONE: (416) 868-6970
NIGHT LINE NO. 868-
TELEX NO. 065-24689

REGISTERED

RECEIVED
JAN 27 1983
MINING LANDS SECTION

January 24, 1983

Mr. Fred W. Matthews
Land Management Branch
Whitney Block, Room 6452
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Mr. Matthews:

Enclosed are reports in duplicate on geophysical surveys in Barnet and Thackeray Townships on claims listed on the attached copy of the report of work form as acknowledged December 6, 1982.

We wish to apply for 1,080 days credit on 18 claims under the special provision section of the Ontario Mining Act.

Yours truly,

R. W. Woolham
Project Geophysicist

RWW/ml
Enclosures
c.c. Mr. K. B. McHale

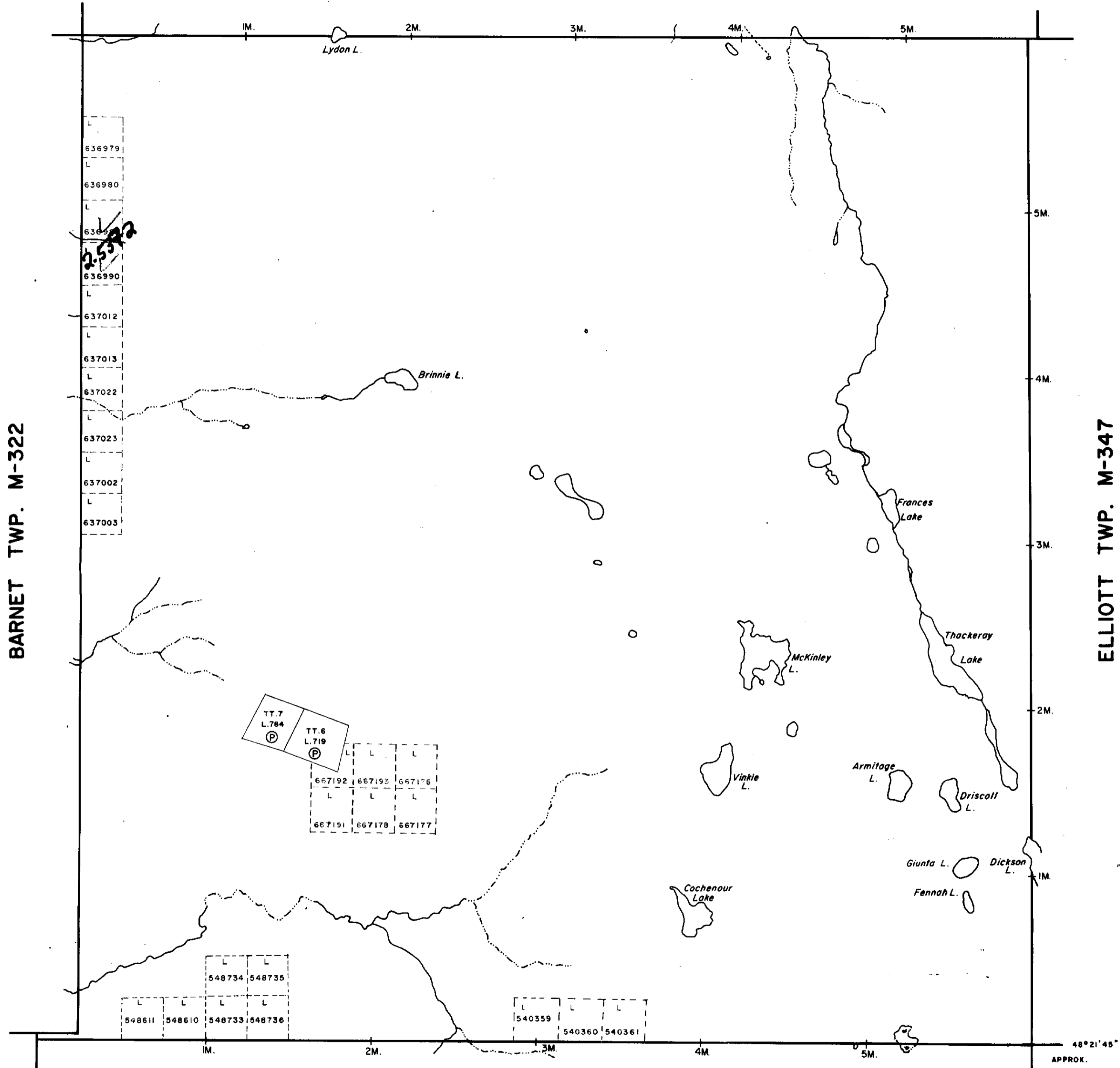
2.5372

	E.M.	Mag.		E.M.	Mag.		E.M.	Mag.
L.-636987	✓	✓	L.-636995	✓	✓	L.-637001	✓	✓
88	✓	✓	96	✓	✓	637004	✓	✓
89	✓	✓	97	✓	✓	05	✓	✓
90	1/2	1/2	98	✓	✓	06	✓	✓
91	1/2	1/2	99	✓	✓	637007	✓	✓
636992	1/2	1/2	637000	✓	✓	637024	✓	✓

These claims are smaller than usual, + have no claim posts along the Southern Boundary. I am therefore assuming that only 1/2 of the claims are covered.

D.K.

GARRISON TWP. M-349



NOTES

400' surface rights reservation along the shores of all lakes and rivers.

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

LEGEND

- PATENTED LAND Ⓟ or ●*
 - PATENTED FOR SURFACE RIGHTS ONLY Ⓞ*
 - LEASE Ⓛ
 - LICENSE OF OCCUPATION L.O.
 - CROWN LAND SALES C.S.
 - LOCATED LAND Loc.
 - CANCELLED C.
 - MINING RIGHTS ONLY M.R.O.
 - SURFACE RIGHTS ONLY S.R.O.
 - HIGHWAY & ROUTE NO.
 - ROADS
 - TRAILS
 - RAILWAYS
 - POWER LINES
 - MARSH OR MUSKEG
 - MINES
- *used only with summer resort locations or when space is limited

TOWNSHIP OF
THACKERAY
DISTRICT OF
COCHRANE
LARDER LAKE
MINING DIVISION
SCALE : 1 INCH = 40 CHAINS (1/2 MILE)

DR. R.W. NOBLE
DATE NOV. 4, 71. PLAN NO. **M-394**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



BISLEY TWP. M-328

Michaud Twp.

THE TOWNSHIP OF
OF
BARNET

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH= 40 CHAINS

LEGEND

- | | |
|-----------------------|---------------|
| PATENTED LAND | (P) |
| CROWN LAND SALE | (S) or (C.S.) |
| LEASES | (L) |
| 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 | |

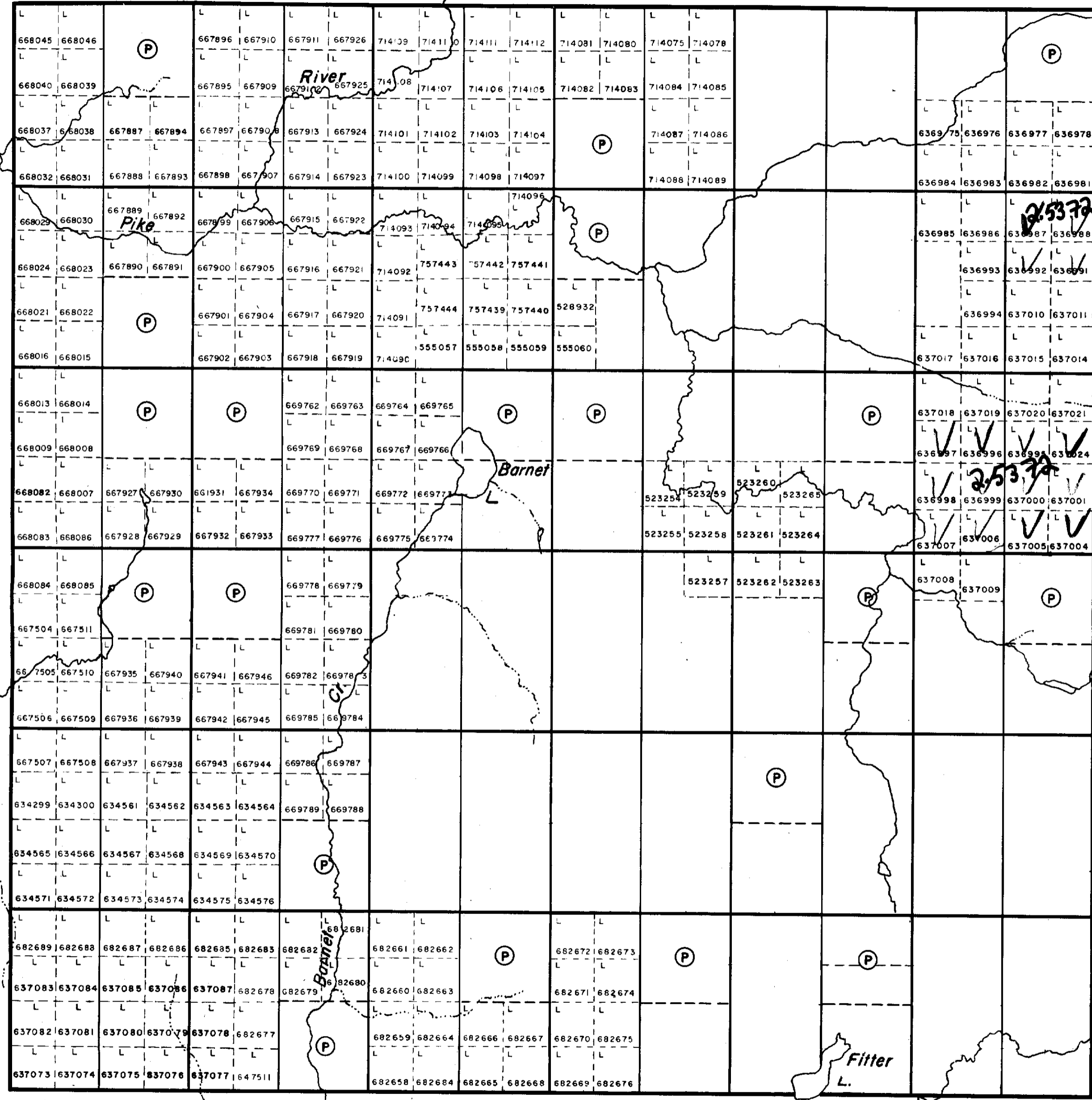
NOTES

400' Surface rights reservation around all lakes and rivers.

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

PLAN NO.- M. 322

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



VI

V

IV

III

II

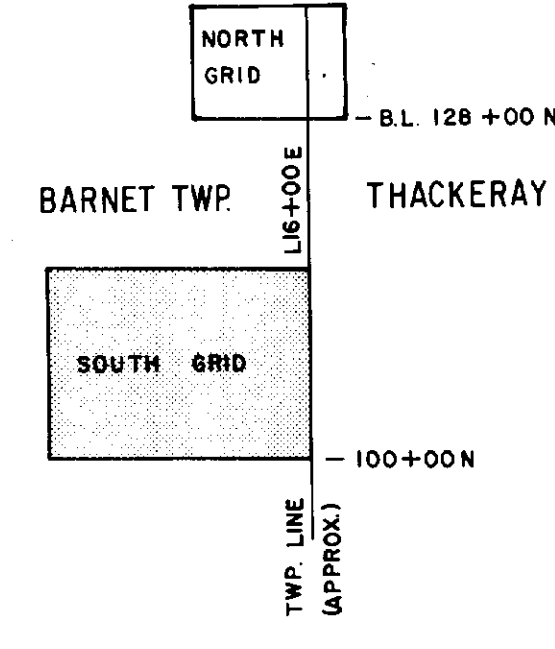
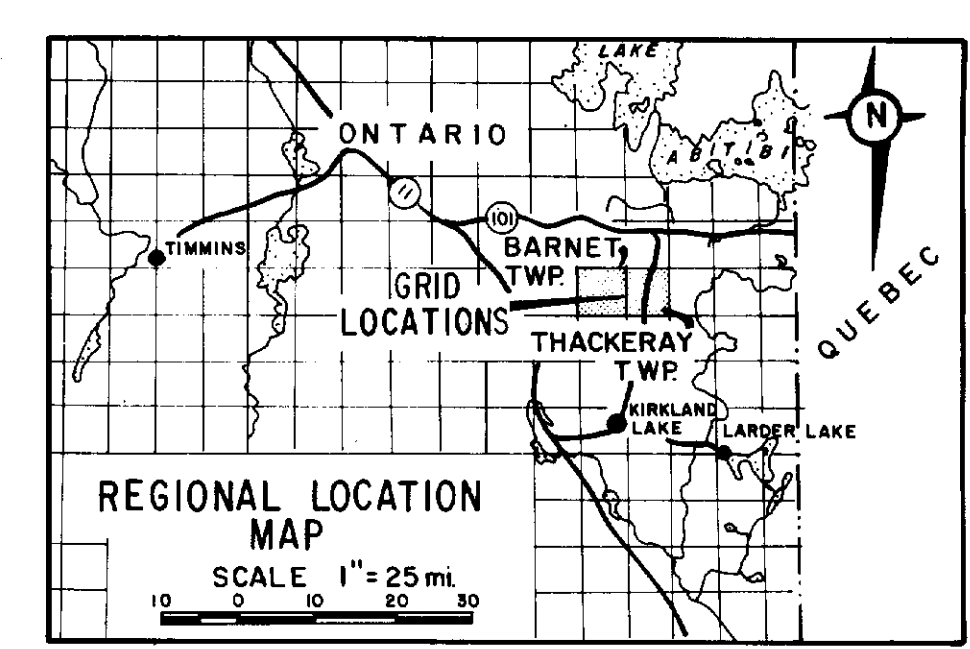
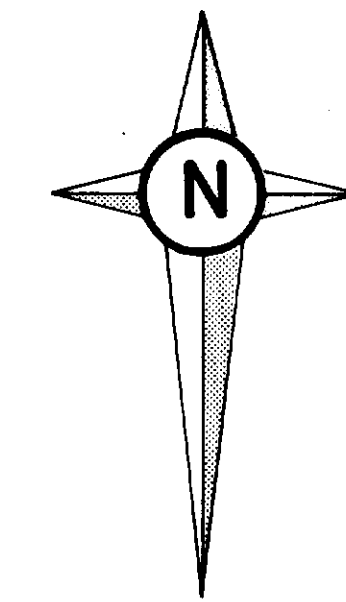
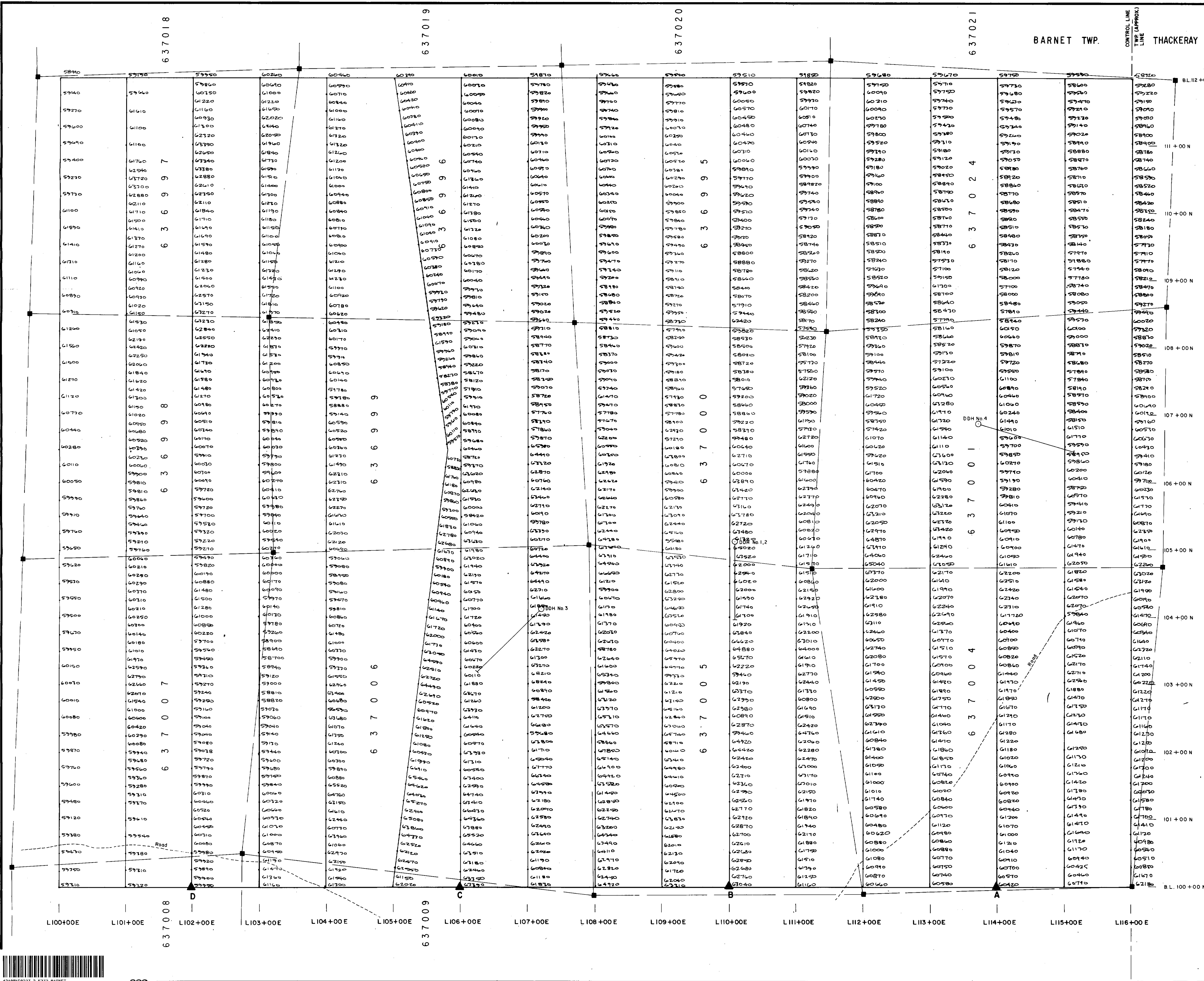
Thackery Twp.

Cook Twp.

Melba Twp.



42A08NE0227 2.5372 BARNET



- LEGEND**
- ▲ Base stations
 - 59930 Magnetic values
 - 1950 Borehole
- Values shown are total magnetic field in nanotesla

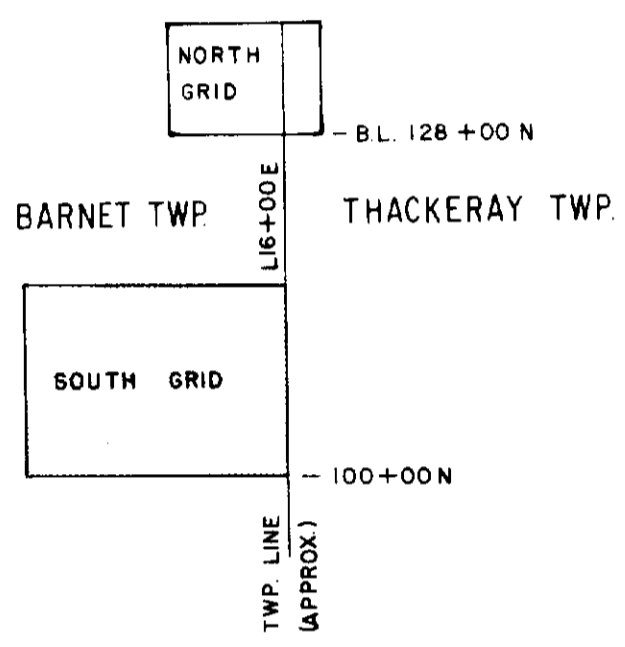
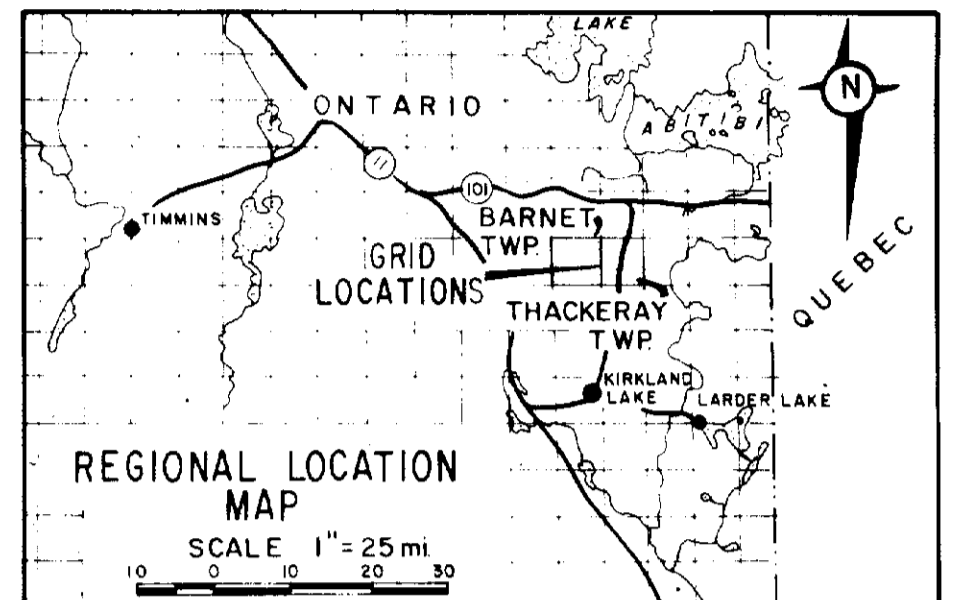
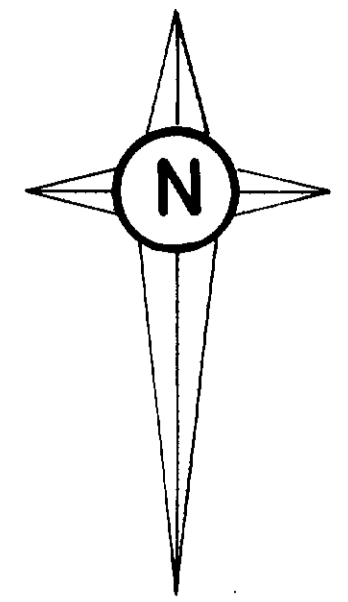
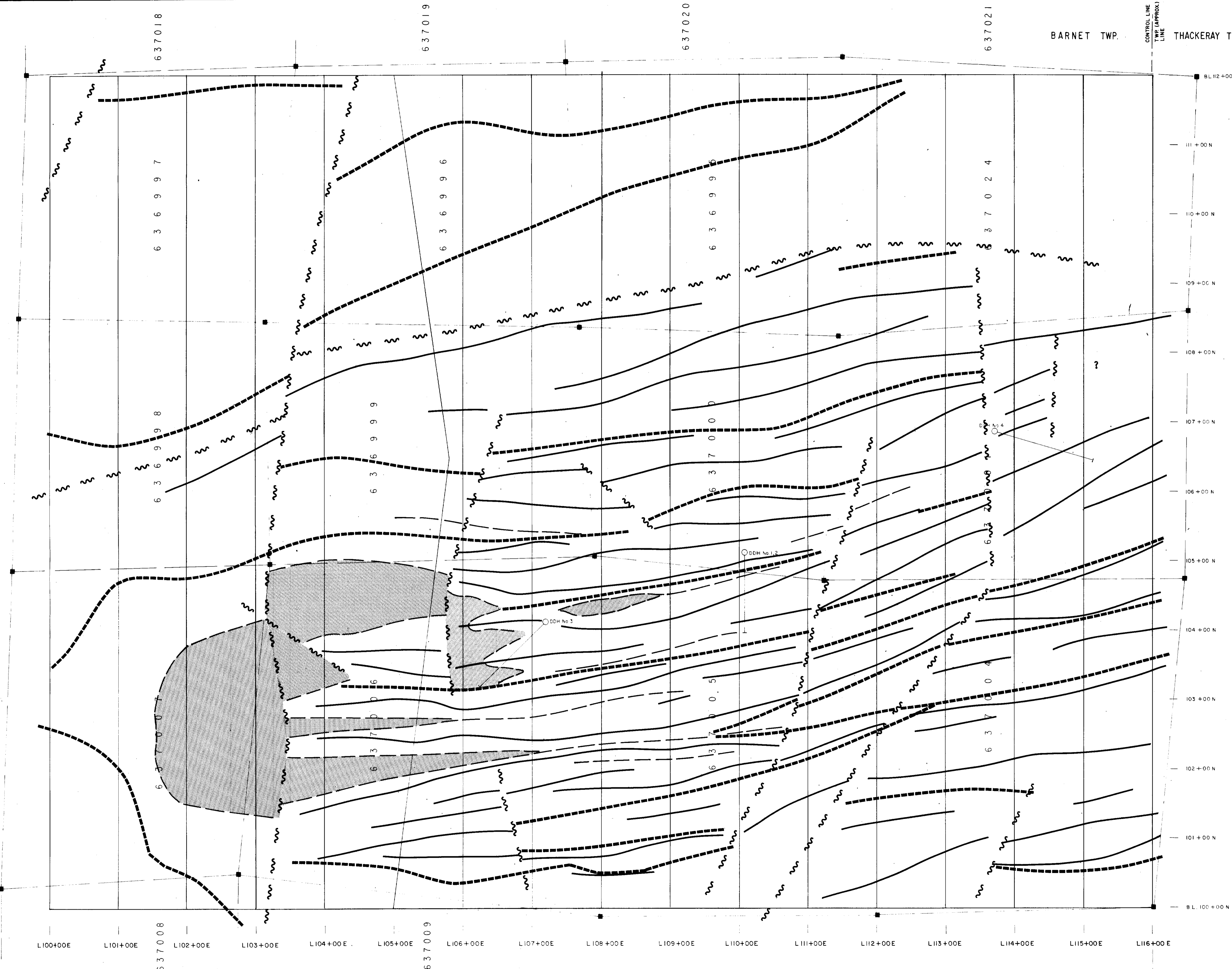


BRINCO MINING LIMITED
TILlicum PROJECT
 BARNET AND THACKERAY TOWNSHIPS
 SOUTH GRID
MAGNETIC VALUES

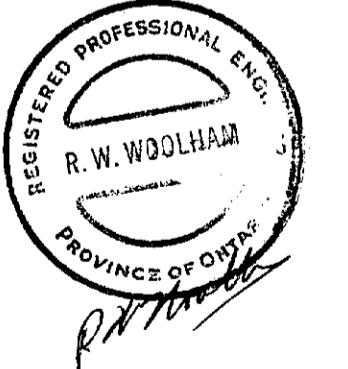
DATE: MAY 21/82 to JUNE 16/82 MAP NUMBER: P82004 - 3 COMPILATION: DRAFTING: GCS Ltd.

SCALE 1" = 2500 METRES





- LEGEND**
- fold fault axis
 - magnetic linear
 - geomagnetic boundary
 - areas of low magnetic relief possibly related to syenite
 - Dominion Gulf drill holes



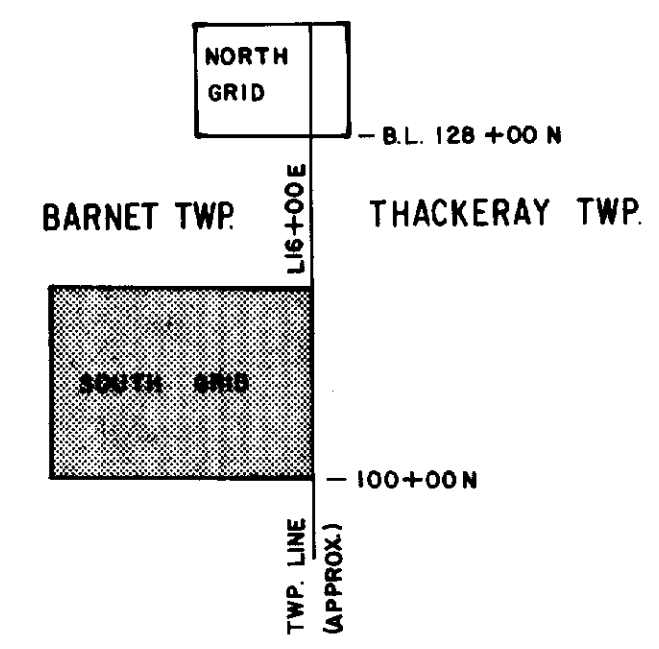
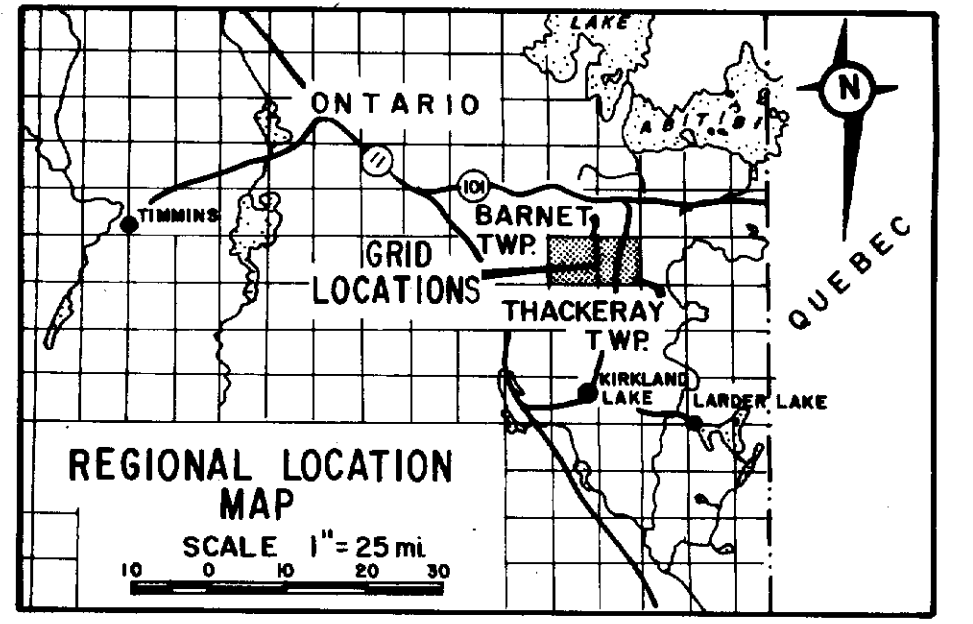
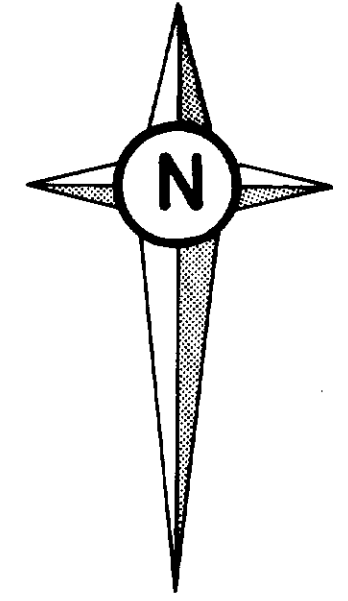
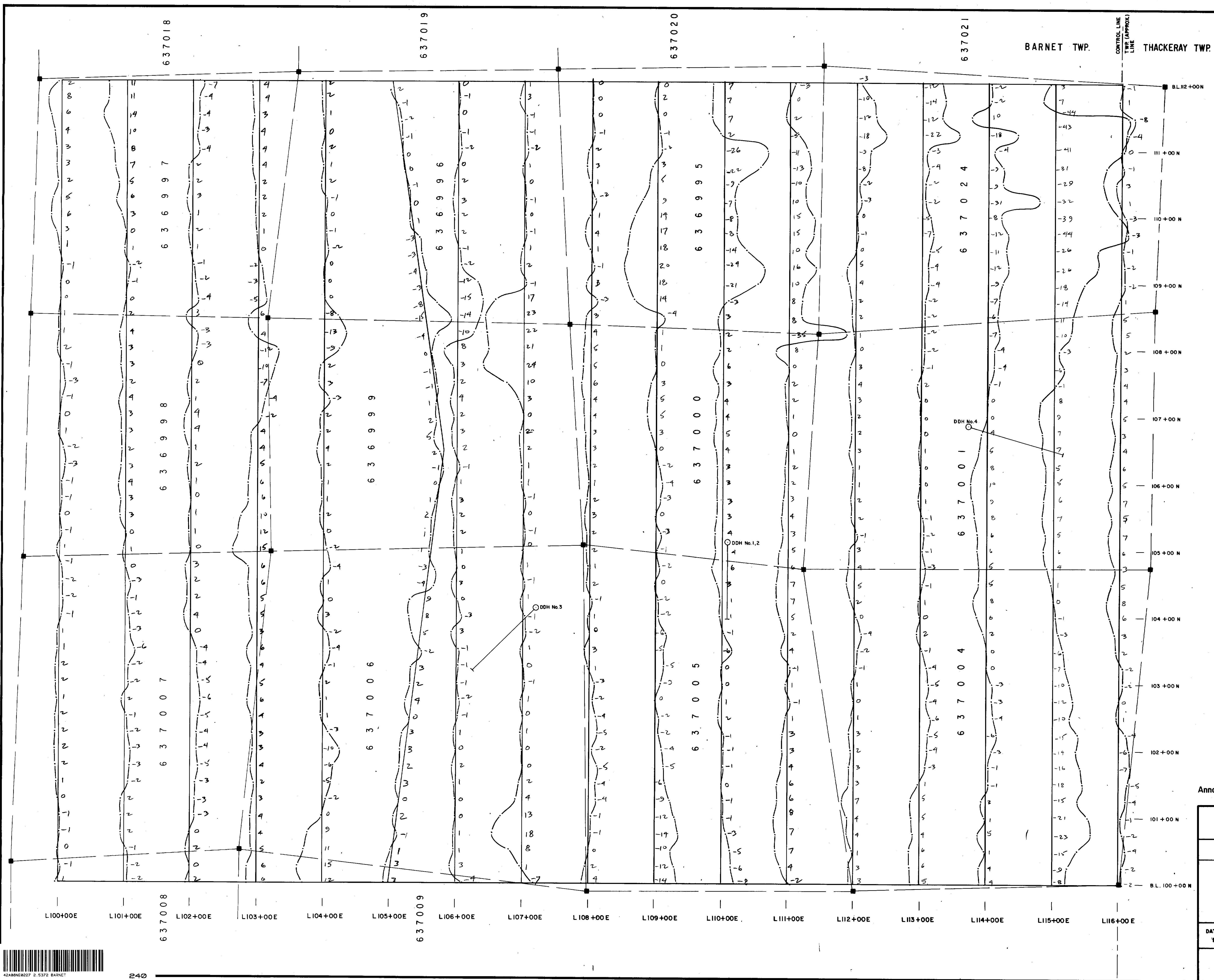
BRINGO MINING LIMITED

TILLICUM PROJECT

BARNET AND THACKERAY TOWNSHIPS
SOUTH GRID

MAGNETIC INTERPRETATION

DATE: MAY 21/82 to JUNE 16/82	MAP NUMBER: P82004-II MAP REFERENCE:	COMPILATION: DRAFTING: GCS Ltd.
SCALE 1:2500		



LEGEND

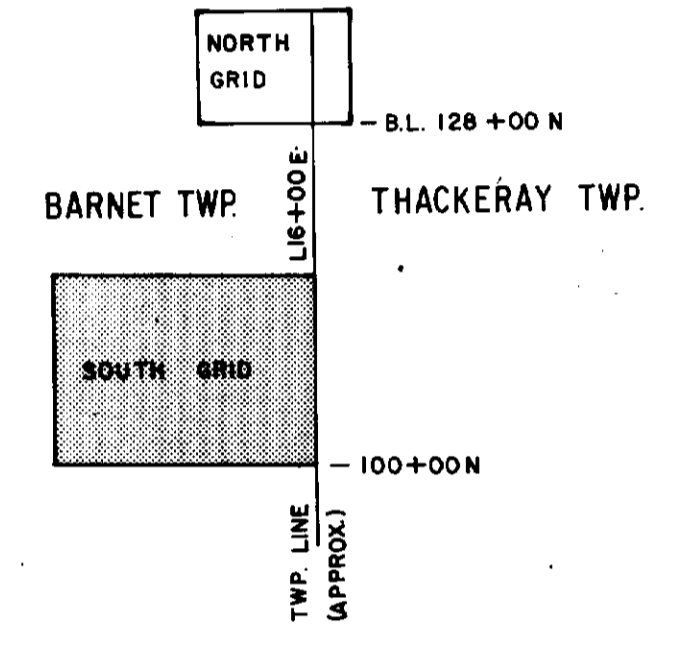
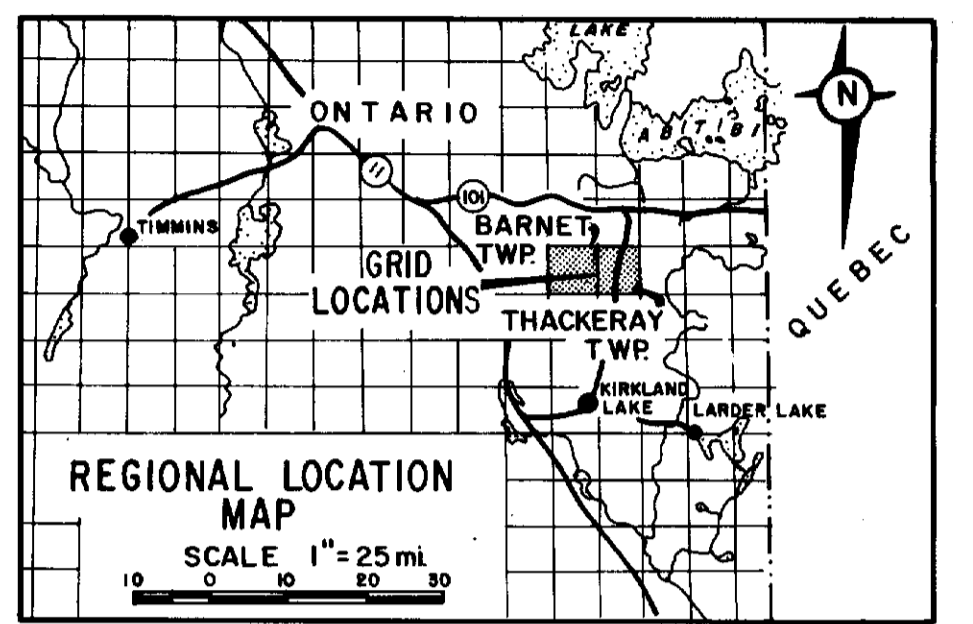
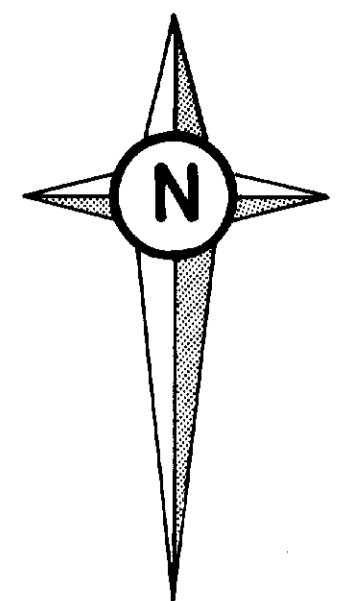
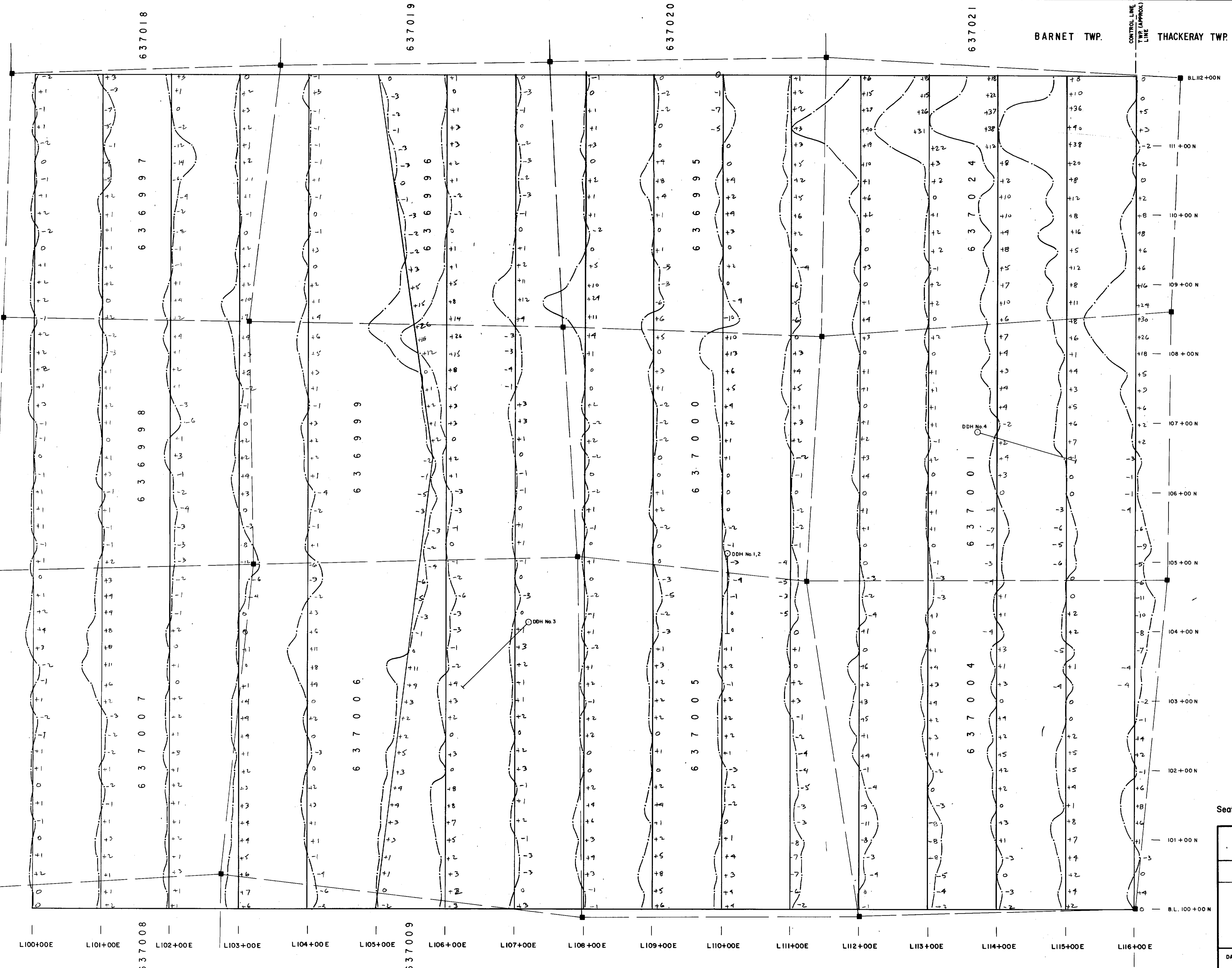
- INSTRUMENT: Crone Radem
- STATION: Annapolis, Md 21.4kHz
- Axis of coil
West Dips East Dips
- 30° 20° 10° 0 10° 20° 30°
- — 1950 Borehole



Annapolis, Maryland

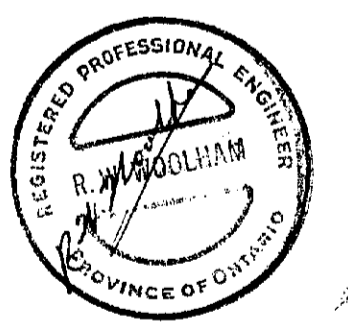
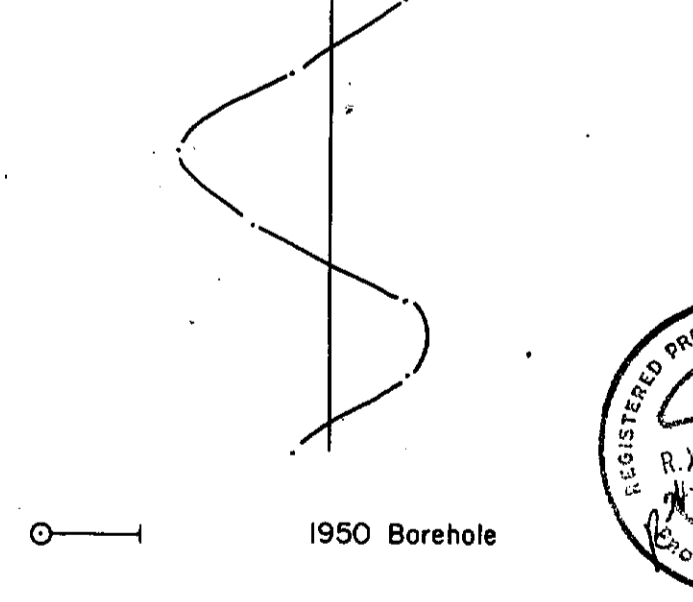
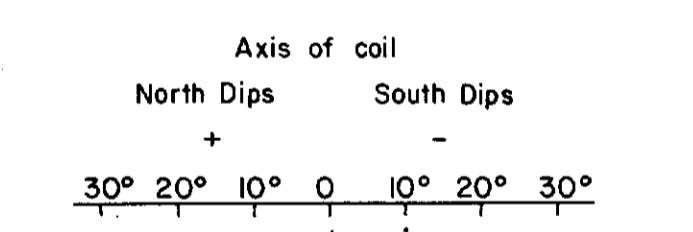
BRINGO MINING LIMITED		
TILlicum PROJECT		
BARNET AND THACKERAY TOWNSHIPS		
SOUTH GRID		
VLF EM PROFILES		
DATE: MAY 21/82 to JUNE 16/82	MAP NUMBER: P82004-9 MAP REFERENCE:	COMPILATION: DRAFTING: GCS Ltd.
SCALE 1:2500		





LEGEND

INSTRUMENT: Crone Rodem
STATION: Seattle, Wash. 24.8 kHz

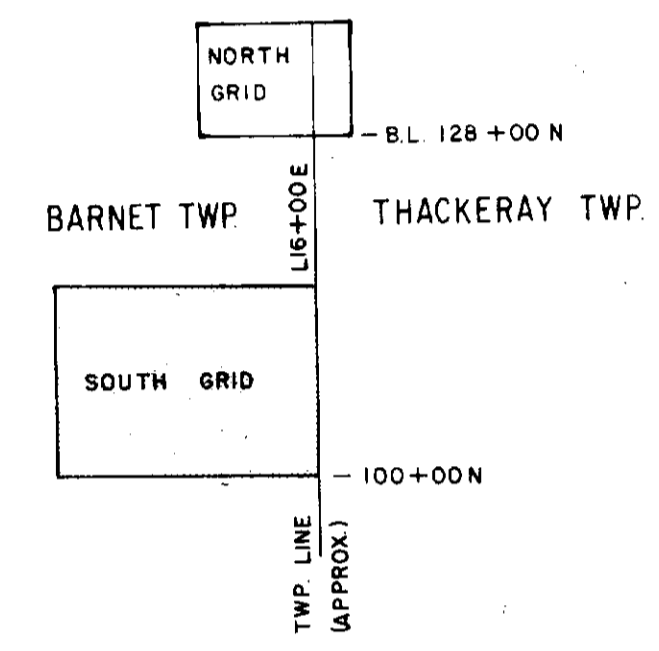
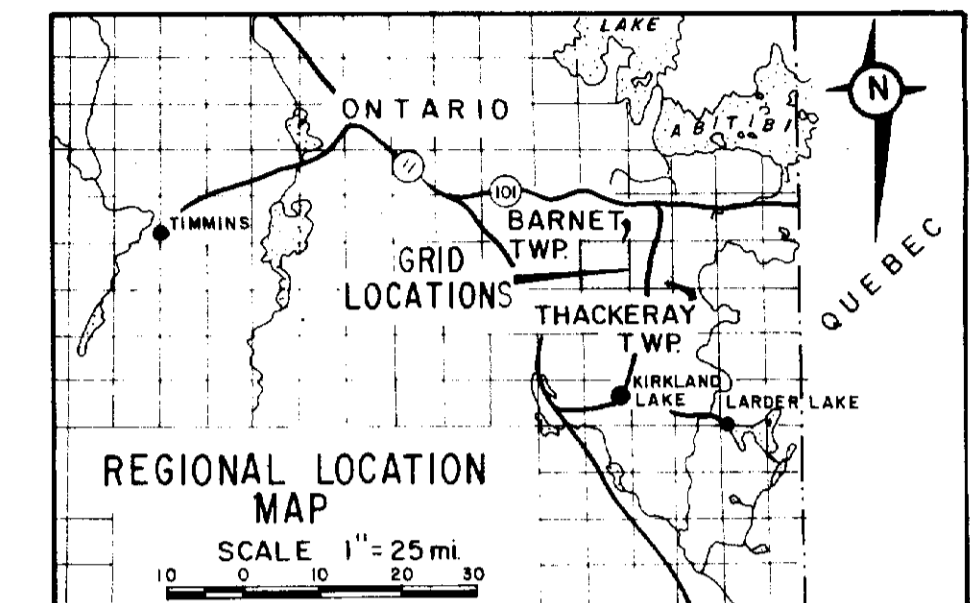
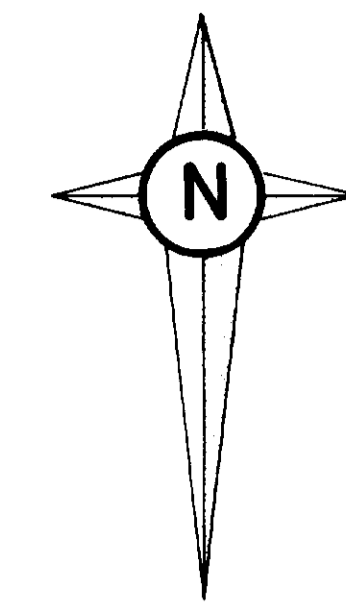
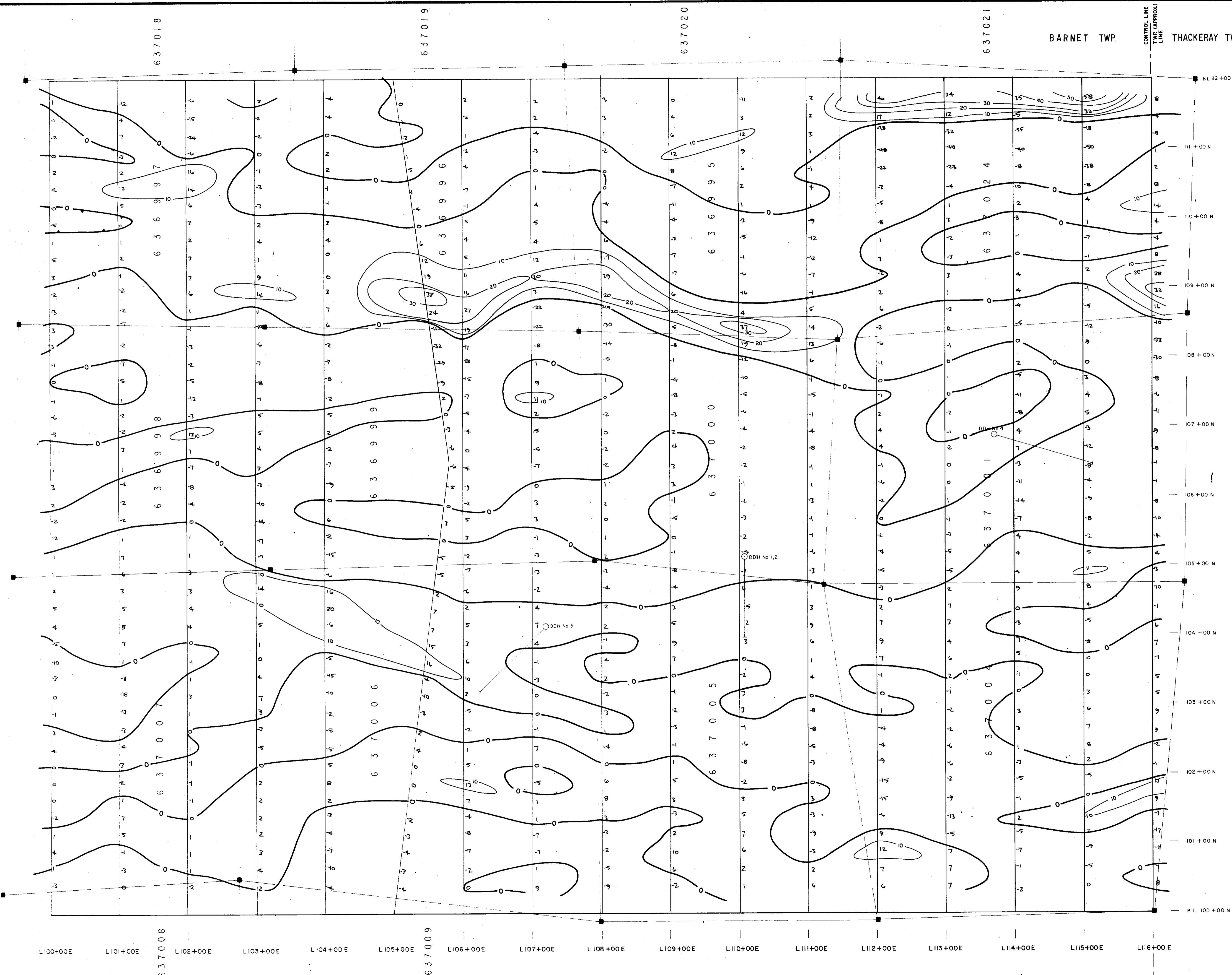


Seattle, Washington

BRINCO MINING LIMITED
TILlicUM PROJECT
BARNET AND THACKERAY TOWNSHIPS
SOUTH GRID
VLF EM PROFILES

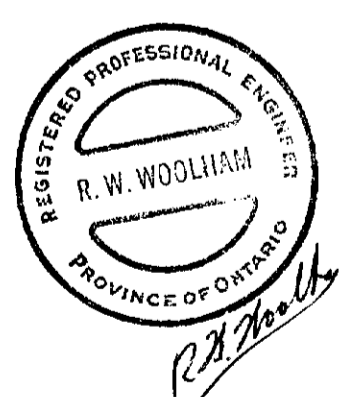
DATE: MAY 21/82 to JUNE 16/82
MAP NUMBER: P82004-8
MAP REFERENCE:
COMPILATION: DRAFTING: GCS Ltd.

SCALE 1:2500
100 50 0 100 200
METRES



LEGEND

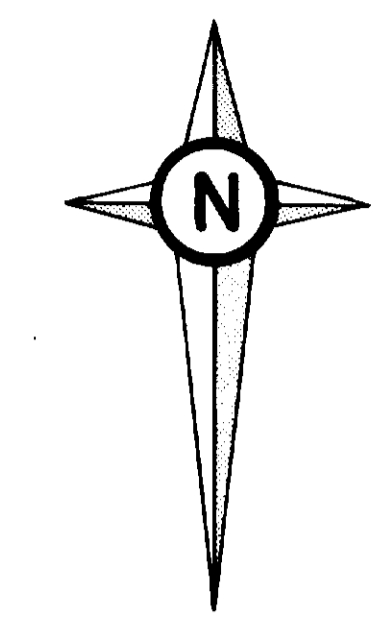
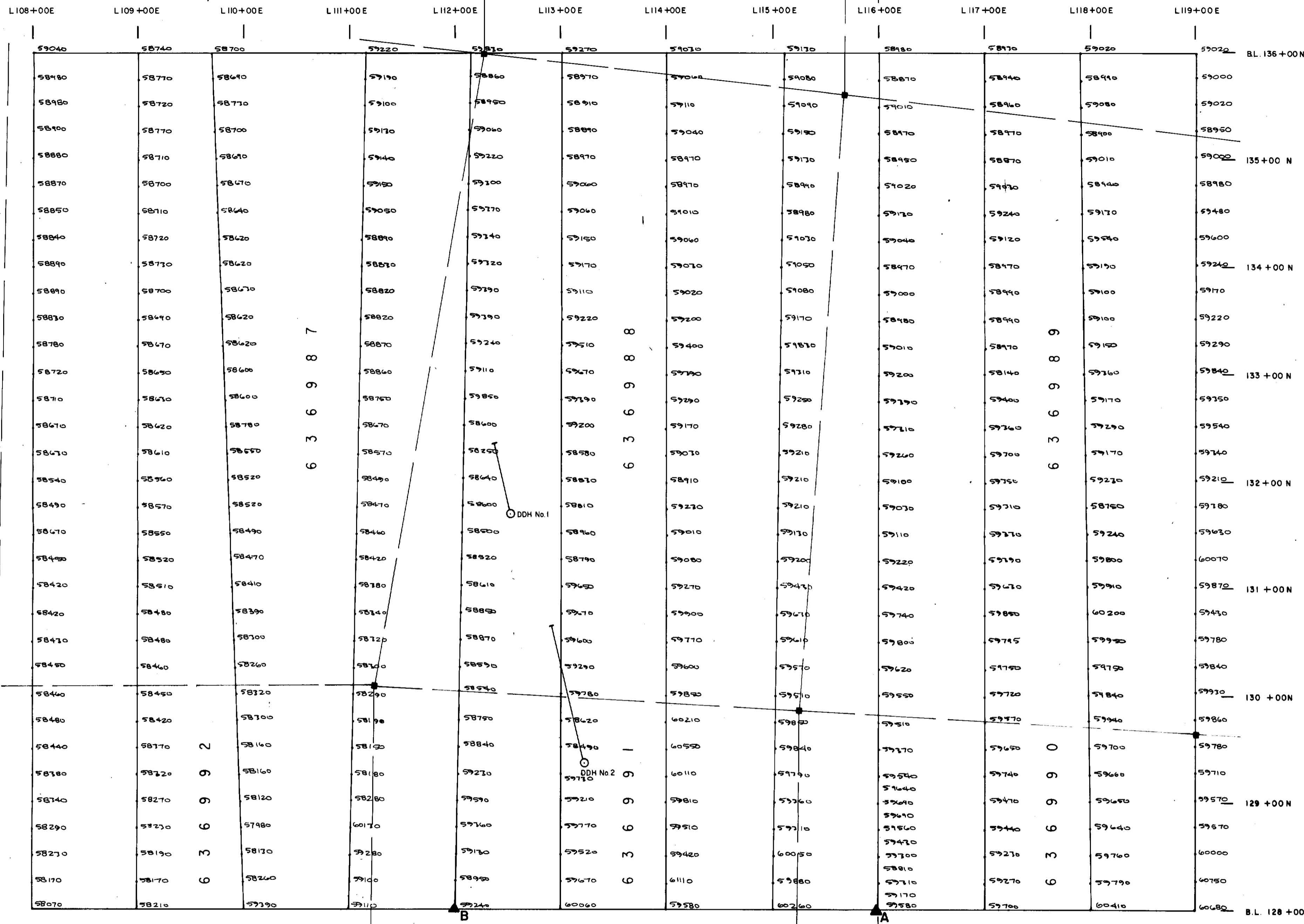
- INSTRUMENT: Crone Rodem
- STATION: Seattle, Wash. 24.8 kHz
- Contour interval = 10
- 0
- 10
- 1950 Boreholes



Seattle, Washington

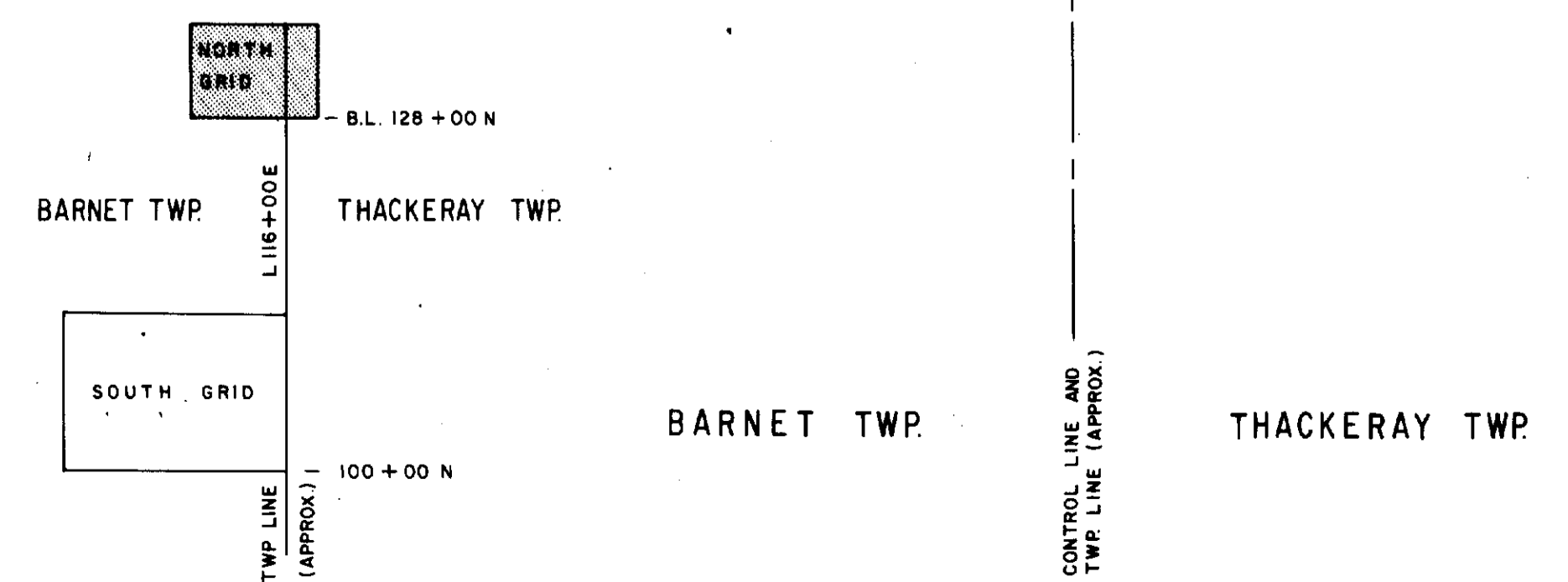
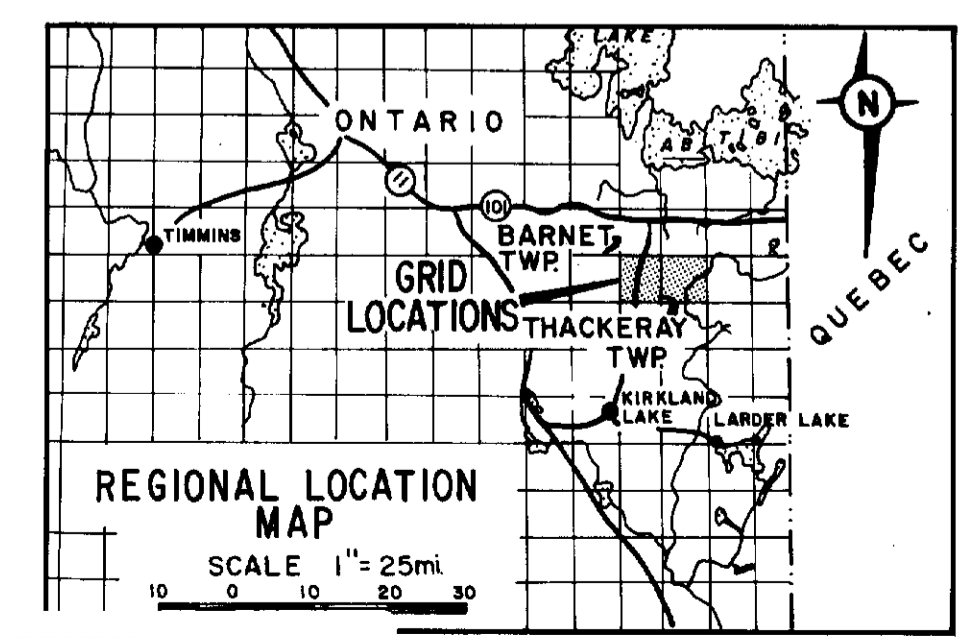
BRINGO MINING LIMITED		
TILlicum PROJECT		
BARNET AND THACKERAY TOWNSHIPS		
SOUTH GRID		
VLF EM FRASER FILTER CONTOURS		
DATE: MAY 21/82 to JUNE 16/82	MAP NUMBER: P82004-10 MAP REFERENCE:	COMPILATION: DRAFTING: GCS Ltd.
SCALE 1:2500		





LEGEND

- ▲ Base stations
- | 59930 Magnetic values
- Values shown are total magnetic field in nanotesla
- 1950 Boreholes



BRINGO MINING LIMITED
TILlicum PROJECT
 BARNET AND THACKERAY TOWNSHIPS
 NORTH GRID
MAGNETIC VALUES

DATE: MAY 21/82
to JUNE 16/82

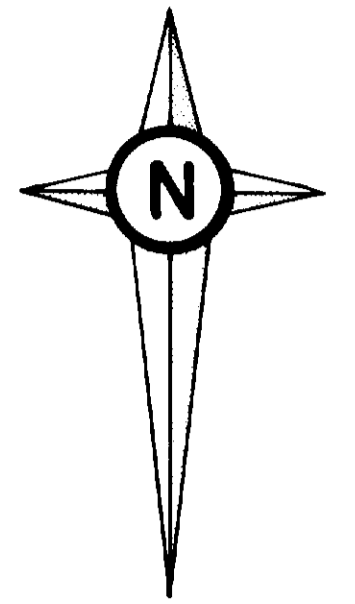
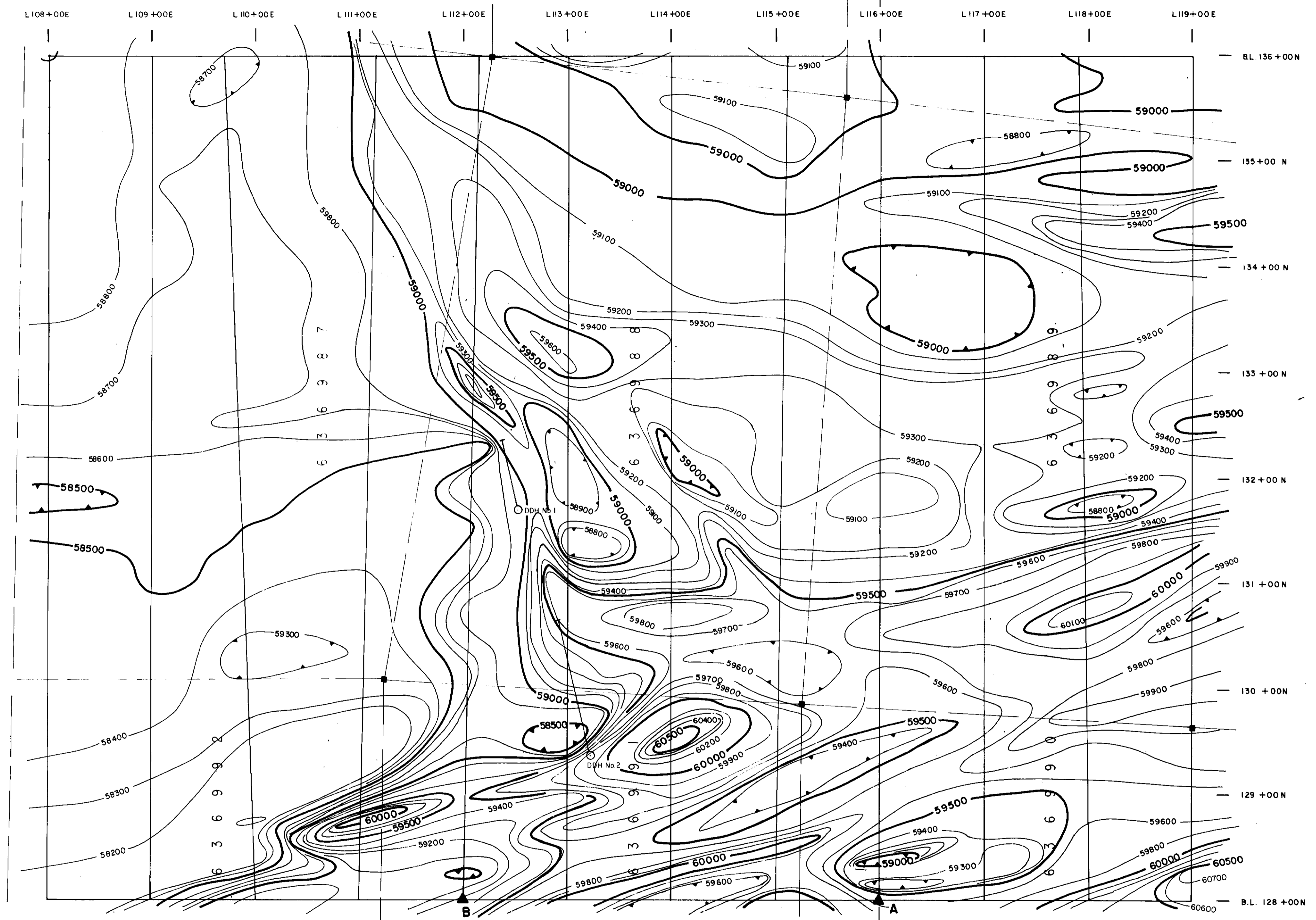
MAP NUMBER: P82004-1
MAP REFERENCE:

COMPILATION: DRAFTING: GCS Ltd.

100 50 0 100 200
METRES

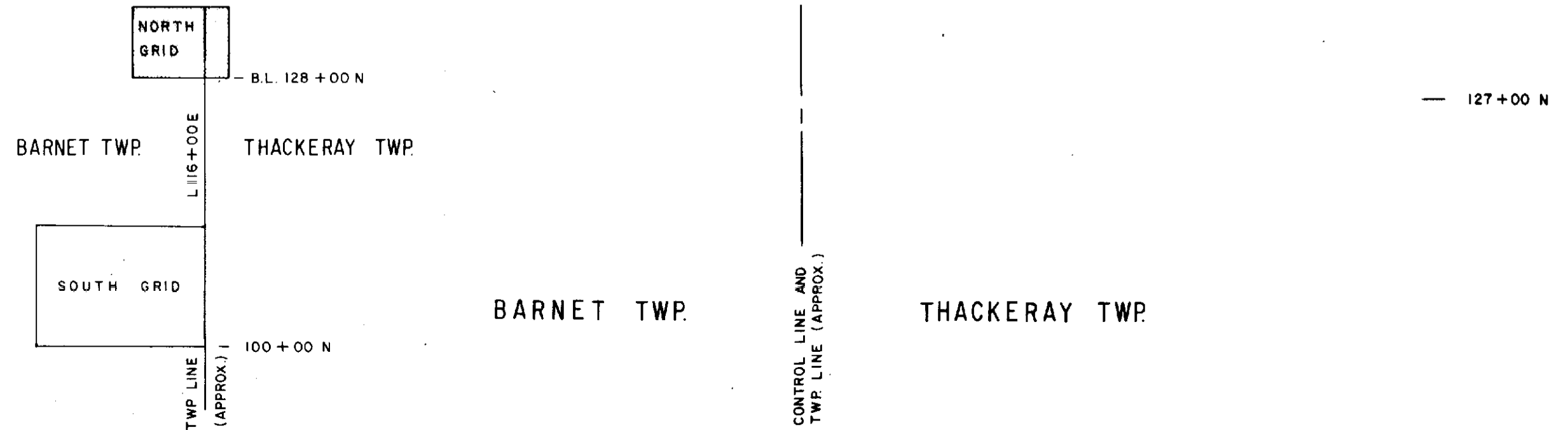
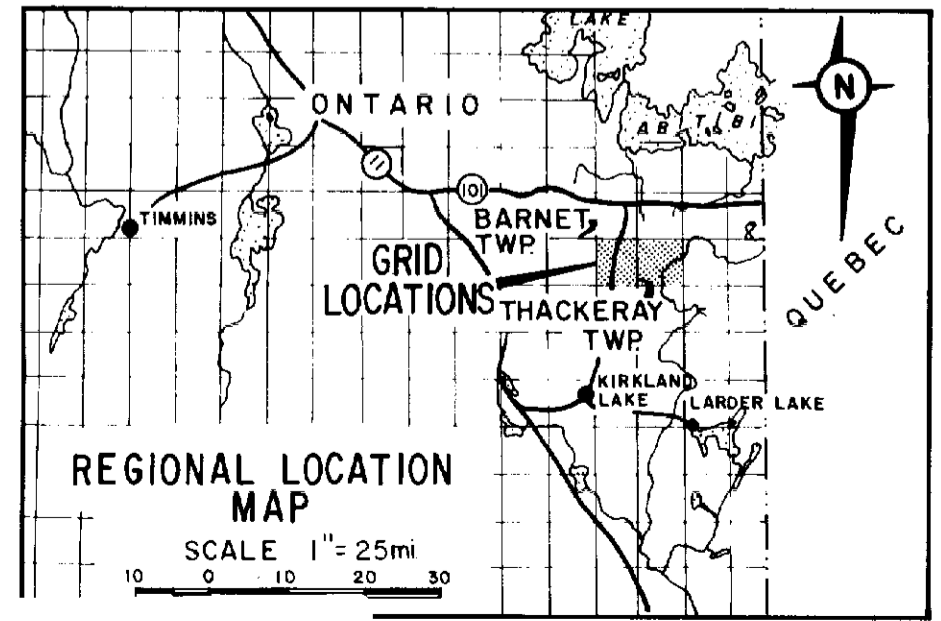


2.5372



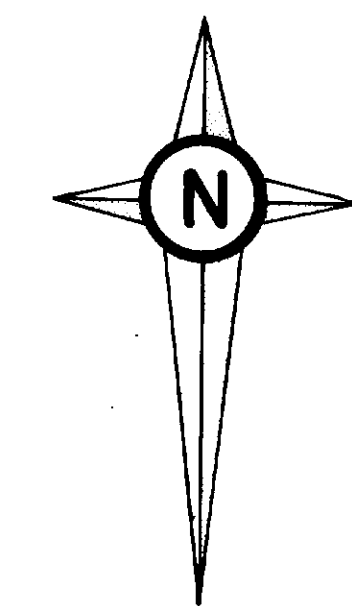
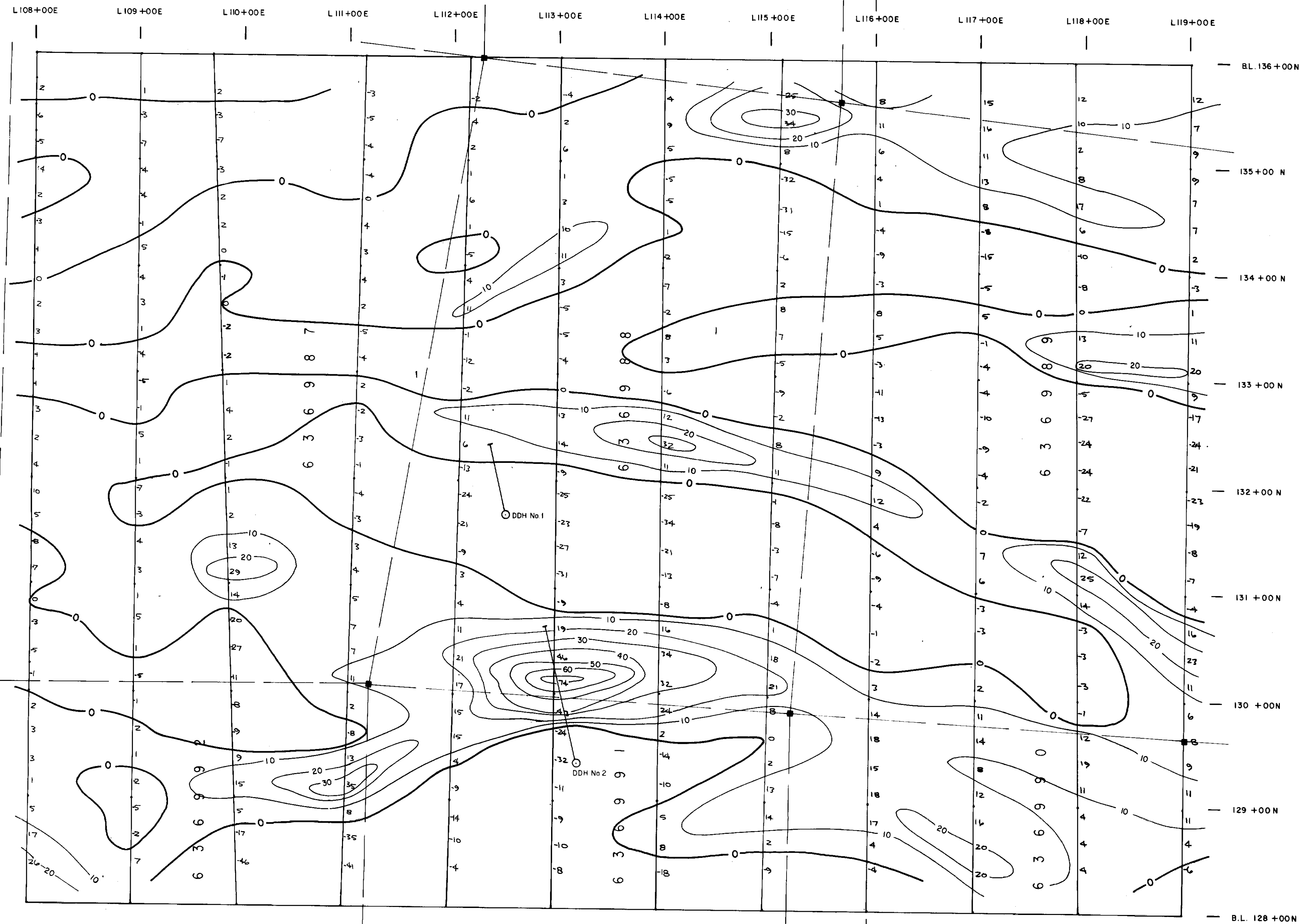
LEGEND

- Magnetic contour
- Magnetic low
- Contour interval 100 nT
- See Map P82004-1 for values
- 1950 Boreholes



BRINCO MINING LIMITED		
TILlicum PROJECT		
BARNET AND THACKERAY TOWNSHIPS NORTH GRID MAGNETIC CONTOURS		
DATE: MAY 21/82 to JUNE 16/82	MAP NUMBER: P82004-2 MAP REFERENCE:	COMPILATION: DRAFTING: GCS Ltd.

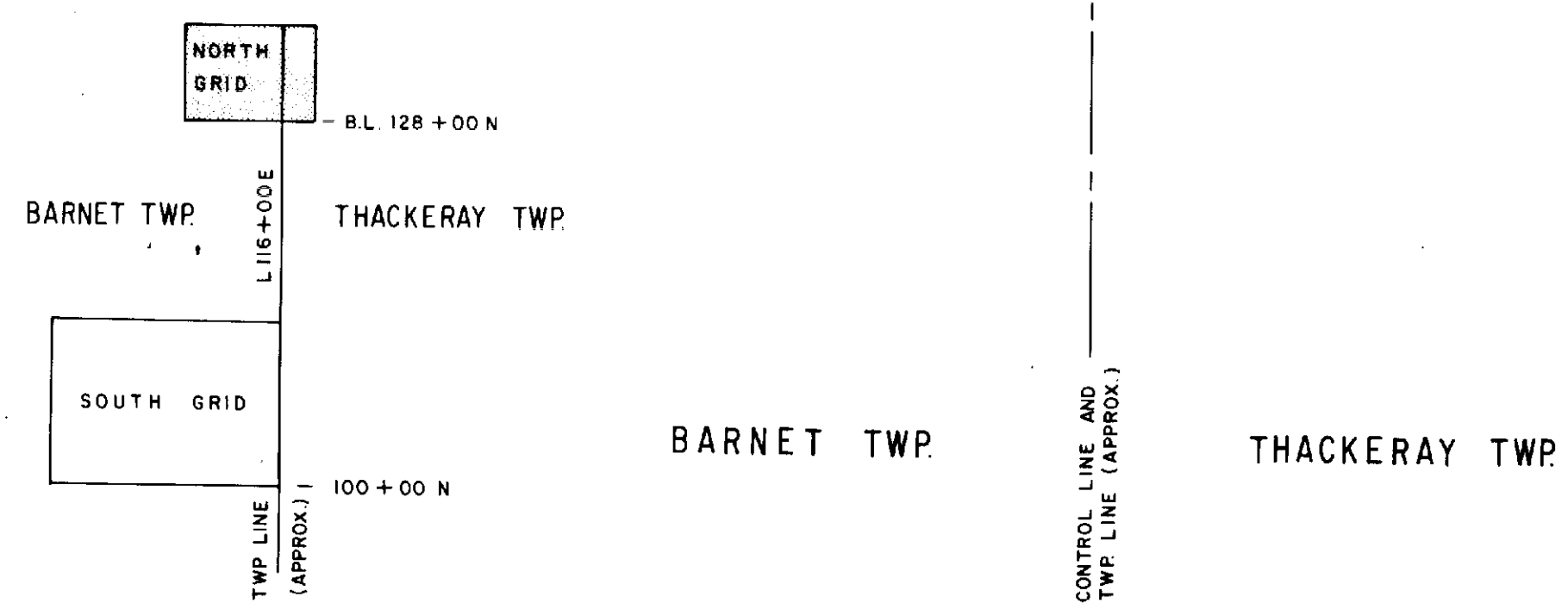
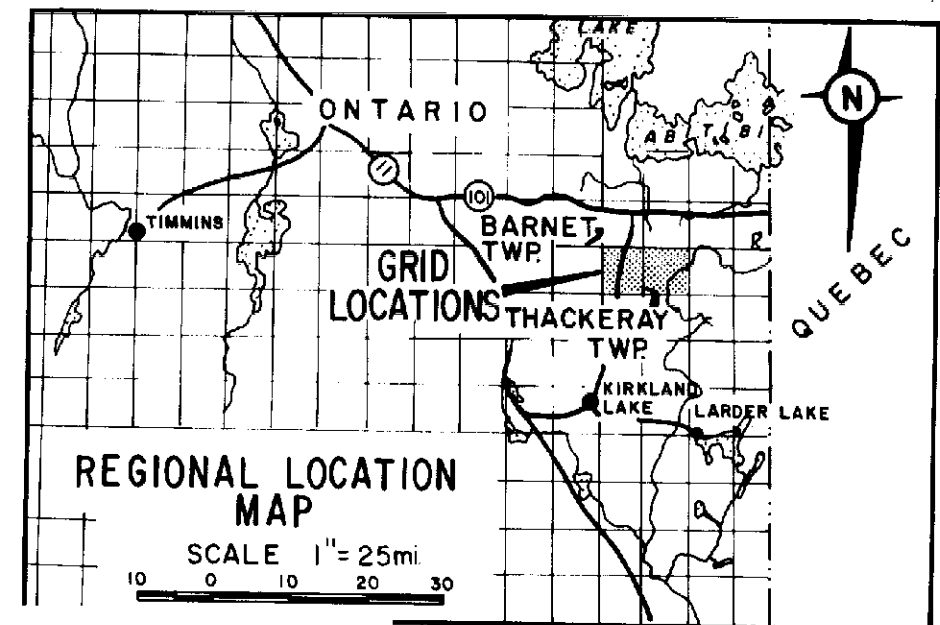
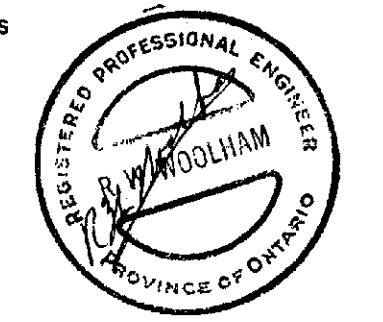




LEGEND

INSTRUMENT: Crone Radem
 STATION: Seattle, Wash. 24.8kHz
 Contour interval = 10

— 0
 — 10
 ○ 1950 Boreholes



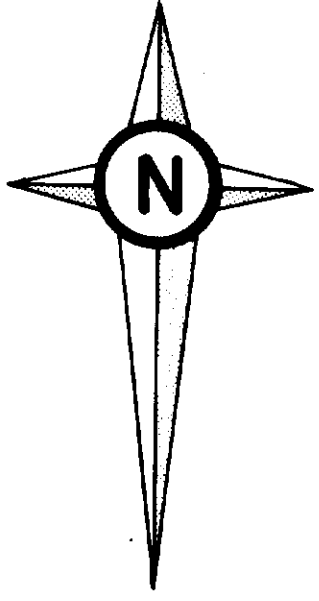
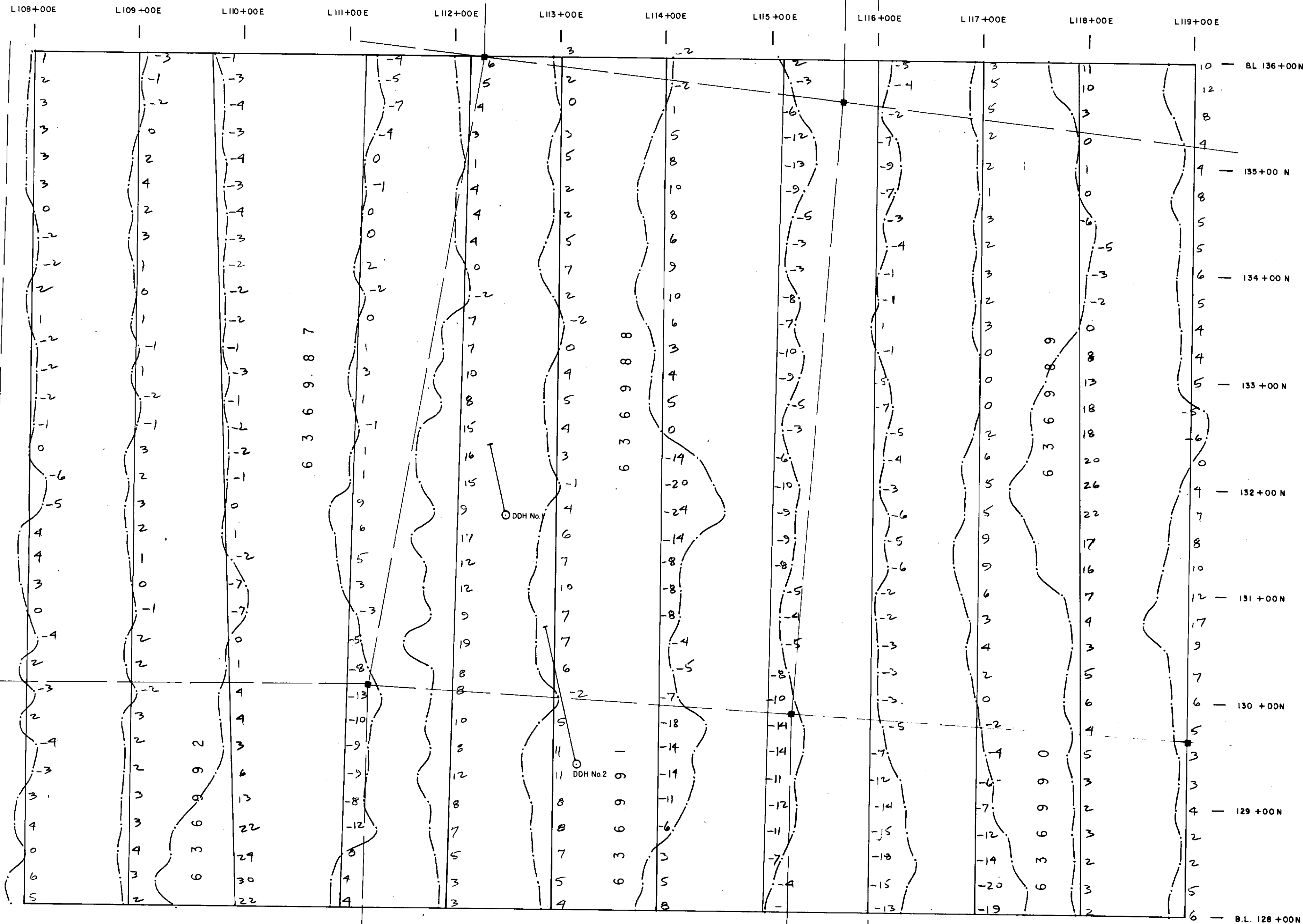
BRINCO MINING LIMITED
TILlicum PROJECT
 BARNET AND THACKERAY TOWNSHIPS
 NORTH GRID
VLF EM FRASER FILTER CONTOURS

DATE: MAY 21/82
 10 JUNE 16/82

MAP NUMBER: P82004-7
 MAP REFERENCE:

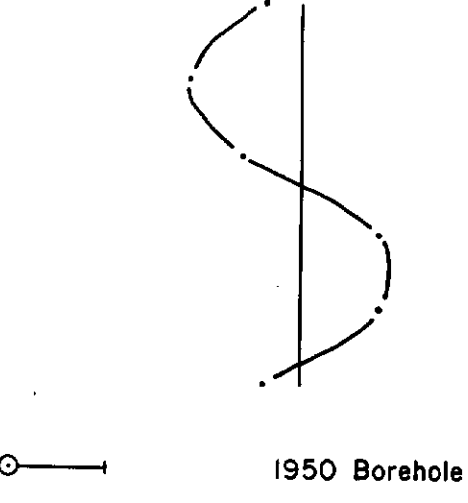
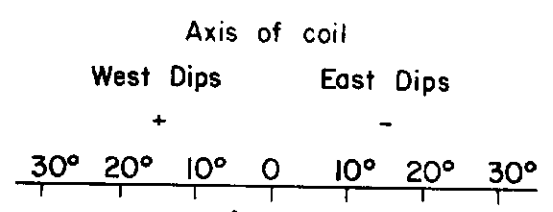
COMPILATION:
 DRAFTING: GCS Ltd.

100 50 0 100 200
 METRES



LEGEND

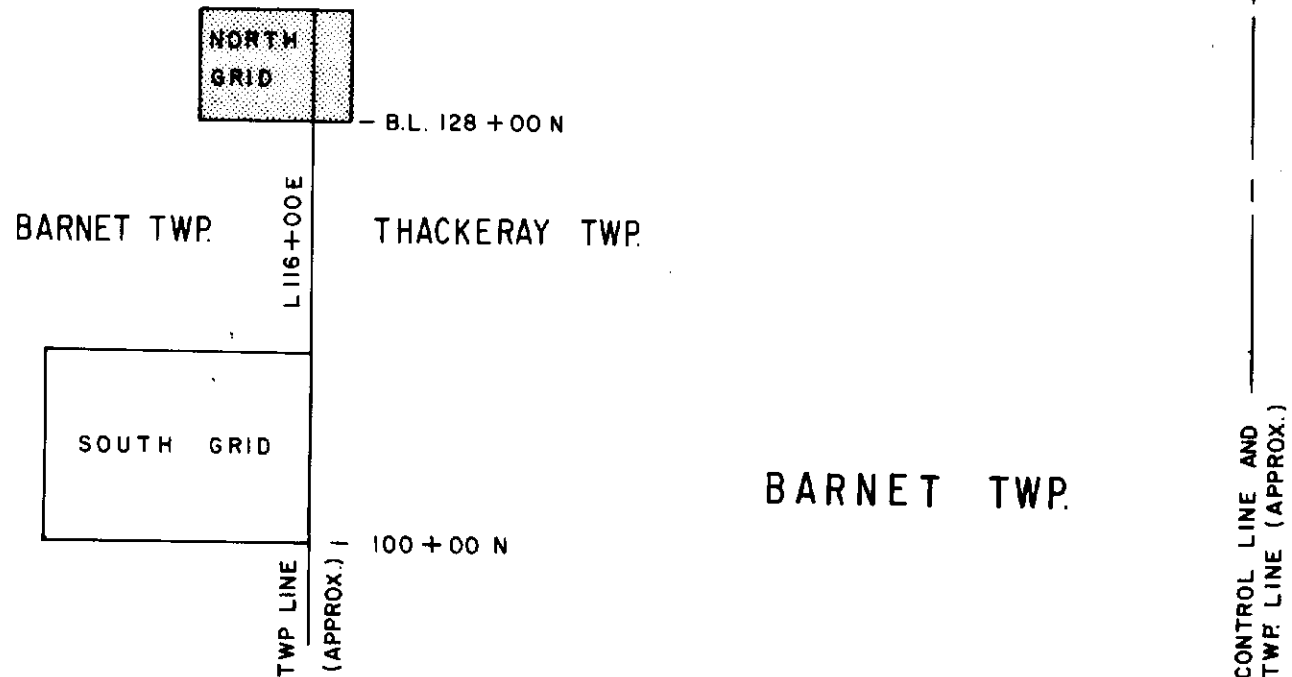
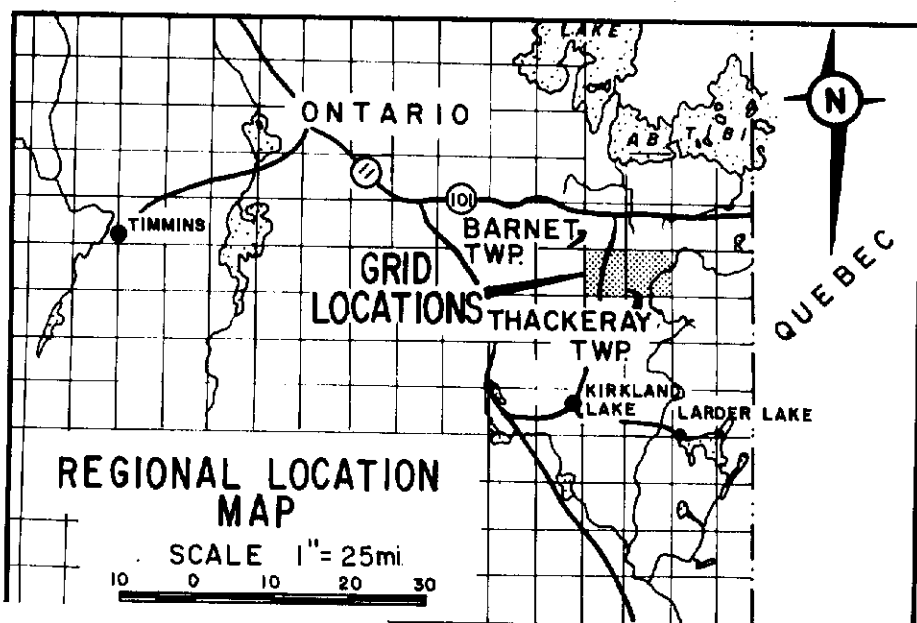
INSTRUMENT: Crane Radem
 STATION: Annapolis, Md 21.4 kHz

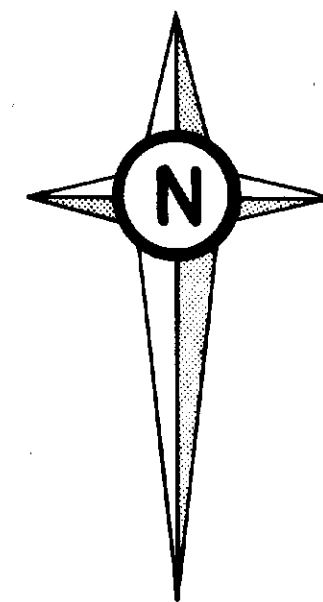
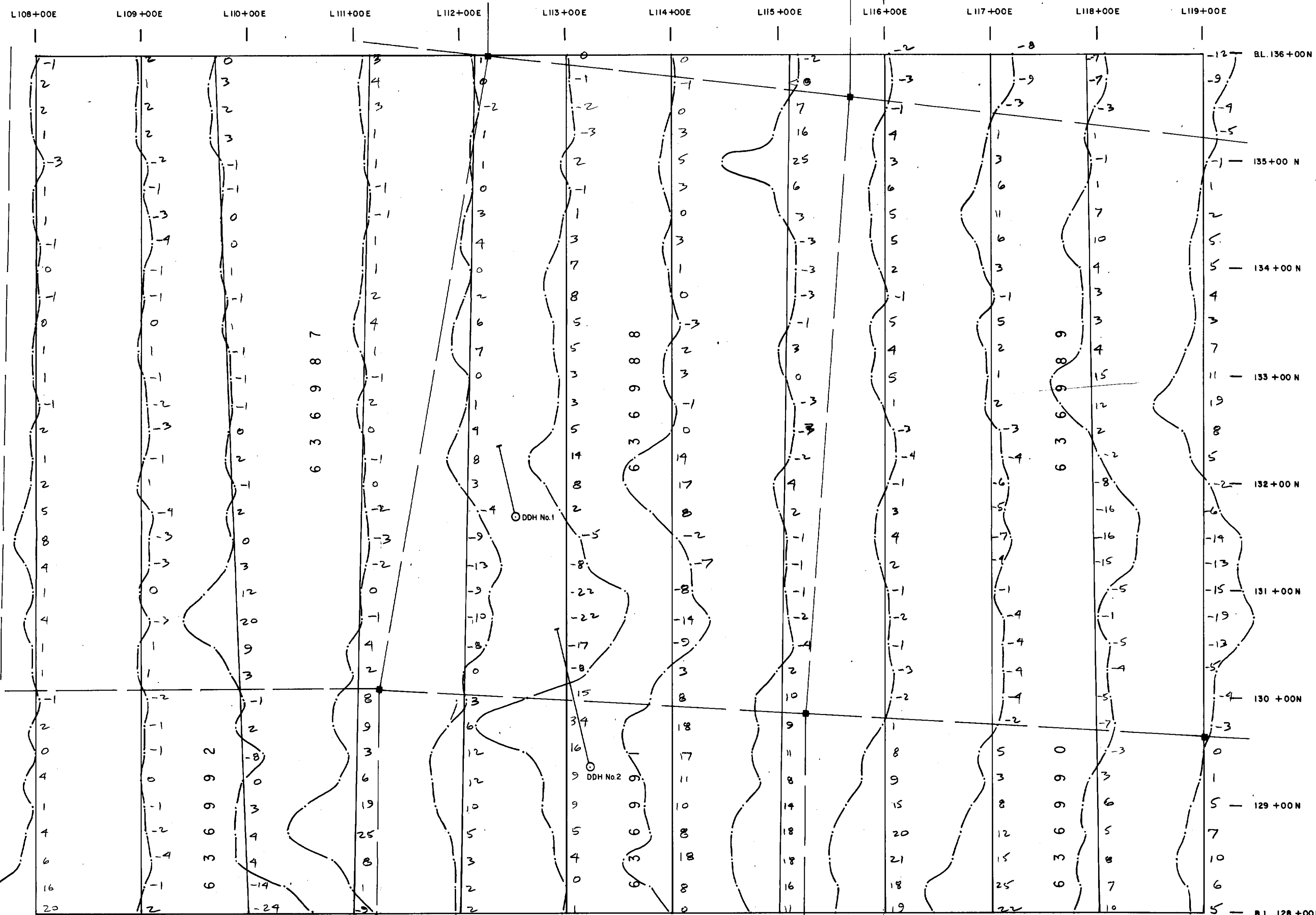


Annapolis, Maryland

BRINCO MINING LIMITED
TILlicum PROJECT
 BARNET AND THACKERAY TOWNSHIPS
 NORTH GRID
VLF EM PROFILES

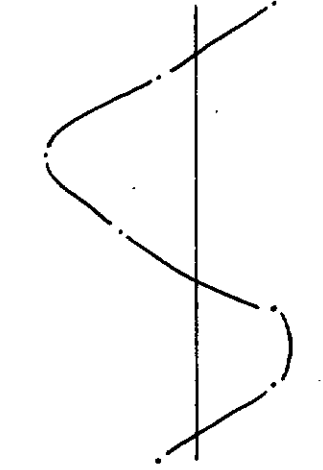
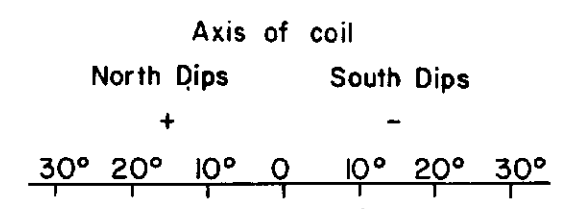
DATE: MAY 21/82 to JUNE 16/82
 MAP NUMBER: P82004 - 6
 MAP REFERENCE:
 COMPILATION: DRAFTING: GCS Ltd.



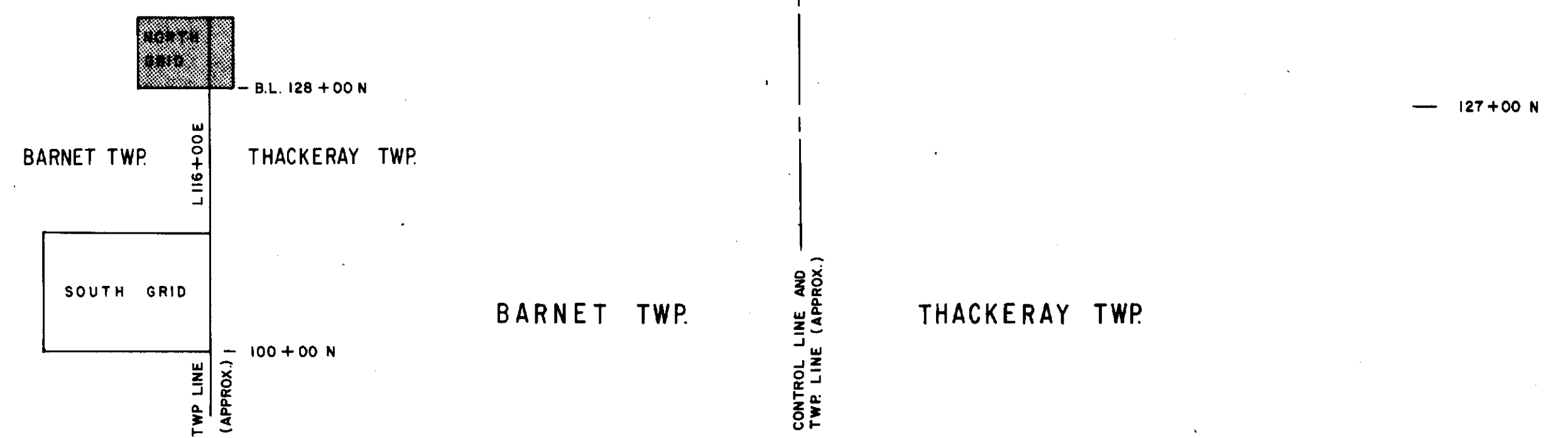
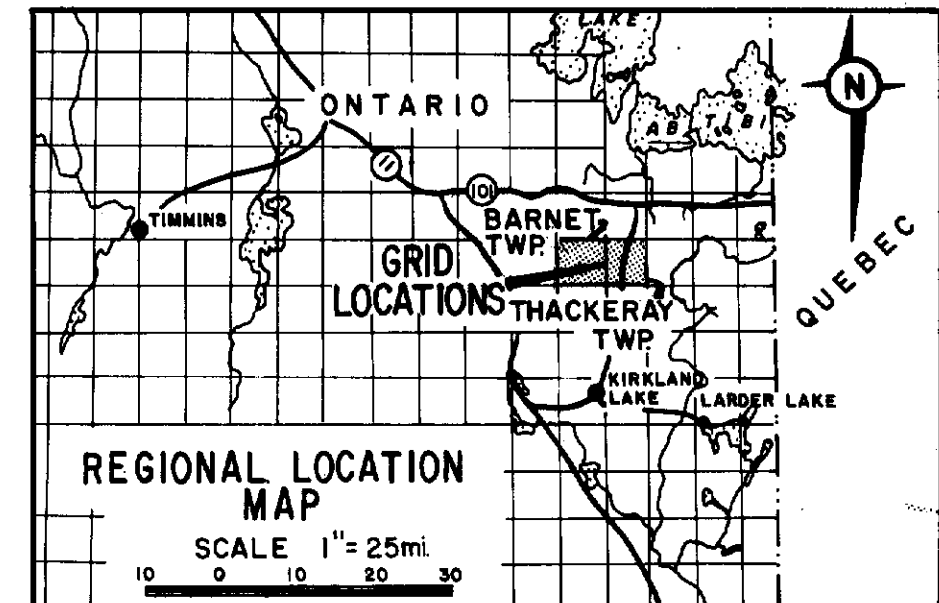


LEGEND

INSTRUMENT: Crone Radem
 STATION: Seattle, Wash. 24.8kHz



Seattle, Washington



BRINGO MINING LIMITED		
TILLICUM PROJECT		
BARNET AND THACKERAY TOWNSHIPS NORTH GRID		
VLF EM PROFILES		
DATE: MAY 21/82 to JUNE 16/82	MAP NUMBER: P82004-5 MAP REFERENCE:	COMPILATION: DRAFTING: GCS Ltd.
<p>METRES</p>		

