

REPORT ON

CALDER-BOUSQUET GOLD PROPERTY
LAVAL TWP., KENORA MINING DIVISION
NORTHWESTERN ONTARIO

FOR

MISTANGO CONSOLIDATED RESOURCES LTD.

BY .

A.C.A. HOWE INTERNATIONAL LTD.

Vernon M. Shein

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Report No. 492 March 20, 1984 Toronto, Canada

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MINING COLORS

A. C. A. HOWE INTERNATIONAL LIMITED



## TABLE OF CONTENTS

	Page
	SUMMARY1
1.	INTRODUCTION2
2.	PROPERTY DESCRIPTION2
3.	LOCATION AND ACCESS
4.	HISTORY3
5.	GEOLOGY4
6.	MINERALIZATION5
7.	PRESENT WORK6
8.	GEOPHYSICAL RESULTS7
9.	CONCLUSIONS9
LO.	RECOMMENDATIONS9
l1.	BUDGET PROPOSAL10
	•
	CERTIFICATE
	Vernon Morgan Shein, B.Sc.
	<u>MAP</u>

Total Magnetic Field Strength

#### SUMMARY

During the period of February 1984, A.C.A. Howe International Limited performed a geomagnetic survey of the Calder-Bousquet Gold Property for Mistango Consolidated Resources Limited.

The surveyed property consists of 20 contiguous unpatented mining claims located in Laval Township, Kenora Mining Division, Ontario.

The target of the gold program was gold mineralization hosted in quartz veins within a zone of numerous, parallel quartz-feldspar porphyry dikes.

Three large magnetic anomalies were identified. However further work is necessary in order to evaluate the property. In this regard a two phase exploration program costing \$133,835.63 is recommended. Phase One would comprise surface work designed to assess surface gold showings and delineate drill targets and cost \$49,896.00. Phase Two would comprise diamond drilling and cost \$83,939.63.

#### 1. INTRODUCTION

In February, 1984, A.C.A. Howe International Limited was commissioned by Mistango Consolidated Resources Limited to conduct a geomagnetic survey of the Calder-Bousquet property. The object of this survey was to define and delineate potential zones of gold mineralization.

Results of this geophysical work are presented in this report.

#### 2. PROPERTY DESCRIPTION

The Calder-Bousquet property consists of twenty contiguous unpatented mining claims located approximately 16 miles (in a straight line), northeast of Dryden.

The claims are listed along with recording dates as follows:

Claim Number	Date Staked	Claim Number	Date Staked
K645073	25/05/82	K645083	25/05/82
K645074	#	K645084	п
K645075		K645104	#
K645076		K645105	•
K645077	•	K645106	•
K645078	•	K645107	•
K645079	•	K645108	•
K645080	•	K645109	•
K645081	•	K645110	w.
K645082	•	K645111	•

#### 3. LOCATION AND ACCESS

The property is located approximately 16 miles (in a straight line), northeast of Dryden, Northwestern Ontario. Dryden is approximately midway between Winnipeg, Manitoba and Thunder Bay, Ontario, and has a population of 8,000. Dryden has a well developed infrastructure, being on the Trans Canada highway and the Canadian Pacific Railroad, and has regular jet service provided by Nordair. There is ready access to natural gas and hydroelectric power in the region.

Access to the property is achieved by travelling east on the Trans Canada highway for 17 miles from Dryden to Dinorwic, north from Dinorwic on highway 72 for 12 miles, and then west on secondary roads to Troutfly Lake and Gardnar Lake (both on the property area), for 1 to 2 miles.

#### 4. HISTORY

The portion of the claim group in the immediate vicinity of Troutfly Lake (20 claims) was investigated in 1950 and 1951 by Calder-Bousquet Gold Mines Ltd. and Eclund Gold Mines Ltd. These companies undertook surface investigations including geological mapping, trenching, sampling and diamond drilling totalling 1101 feet in 11 holes. The M.N.R. Open File Report - 5332, appendix F, reports the best gold value obtained was 0.27 oz. gold/ton and the average was 0.15 oz. gold/ton. Widths of the gold bearing intersections are not indicated, however the width of the zone hosting the intersections is reported to attain 50 feet.

A grab sample from surface work assayed 0.12 oz. gold/ton.

Two drill holes totalling 480 feet were drilled in 1956 and intersected quartz-carbonate stringers and minor sulphides in andesite-gabbro country rock (M.N.R., Mineral Deposit Circular 16, p. 25). It is not reported if the core was assayed for gold or who drilled the holes.

Mr. J. Sweet states that no work was done on the property for gold since that date. The writer did not research the M.N.R. assessment files and therefore can not verify this statement.

#### 5. GEOLOGY

The property is underlain by mafic to intermediate volcanics, felsic to intermediate volcanics and metasediments all of which trend in a northeasterly direction. These units have been intruded by a quartz-monzonite stock, granitic dikes and quartz-feldspar porphyry dikes. The quartz-feldspar porphyry dikes are host to gold bearing quartz veins and sulphides. Wallrock alteration comprising carbonatization and silicification is reported (John H. Low 1951), to occur in specific locations within the claim group particularly adjacent to the dikes. A grab sample from one of these altered zones assayed 0.12 oz. gold/ton.

Fault structures trend predominately northeast with a subordinate set striking east (Low, 1951).

The geological setting of the property is very similar to, and on strike with the Goldlund Mine 6 miles to the northeast.

The reader is referred to the report by Low (1951), for a more comprehensive report on the property's geology.

#### 6. MINERALIZATION

The main gold showing is located in the eastern portion of the property. It is reported (M.N.R. Mineral Deposit Circular 16, appendix F), to comprise a zone of numerous, parallel mineralized quartz-feldspar porphyry dikes trending northeast. The gold is contained in quartz filled fractures cross cutting the quartz-feldspar porphyry dikes, and is accompanied by pyrite, galena, scheelite and chalcopyrite. Drill core assays (1950), averaged 0.15 oz. gold/ton with the maximum value being 0.27 oz. gold/ton. Although the width of the mineralized intersections are not reported, the mineralized zone attains widths up to 50 feet.

The M.N.R. Open File Report - 5332, appendix F, indicates a potential ore body (classified speculative), measuring 100 ft. x 50 ft. x 100 ft. (depth) containing 41,500 tons of ore grading 0.15 oz. gold/ton.

The nature of the mineralization and the geological setting are very similar to the Goldlund Mine located 6 miles to the northeast.

Copper-zinc-silver mineralization occurs in the southwest portion of the property, however the writer has no information regarding grades or tonnages.

#### 7. PRESENT WORK

The work program on the Calder-Bousquet property comprised grid flagging and a geomagnetic survey. The results of the work is illustrated on the Total Magnetic Field Strength Map found at the rear of this report.

The grid was flagged by K. Baldwin with compass and belt chain. The coordinates of each station were marked on the flagging for future reference.

Numerous magnetic anomalies resulted in moderate to severe compass needle deflections. Many stations were aligned by back sighting due to compass deflections.

The location of the claim posts were recorded as they were encountered during the geophysical survey.

The total magnetic field strength was measured using a Barringer Proton Precession magnetometer. Line spacing was 100 yards and stations were located at 100 foot intervals.

#### 8. GEOPHYSICAL RESULTS

#### A. Introduction

In February, 1984, A.C.A. Howe International Ltd. performed a geophysical survey for Mistango Consolidated Resources Ltd. on their Calder-Bousquet property.

The work consisted of a ground magnetics survey using a Barringer PPM. The field strength was measured in nanotesla (nT). Values ranged from 58000 nT to 69000 nT with an average background value of 59700 nT.

### B. Discussion

Claims 645107 to 645111 inclusive in the southeast corner of the property display a flat magnetic response. There are a few isolated anomalies in the range of 62500 nT.

Over the remainder of the property, the field strength tends to vary a great deal with differences between adjacent stations ranging from 200 - 2000 nT.

The magnetic highs and compass deflections tend to occur at, or close to, the crests of northeast trending topographic ridges.

Compass deflections also occurred whenever the meandering creek was encountered.

Three major northeast trending magnetic anomalies have been contoured on the Field Strength Map.

The largest anomaly is located at claims K645081, K645079 and K645078. It consists of four colinear highs, trending 035°. From southwest to northeast, its highs are 68087 nT, 68500 nT, 69000 nT and 63700 nT. It is 4300 feet long and up to 1050 feet wide. It is open to the south and east.

A second anomaly is located at the boundary between claims K645104 and K645107.

It is 3000 feet long and up to 300 feet wide. Trending 035°, it has a maximum field strength of 63694 nT.

The third anomaly is located on claim K645073. It is 1700 feet long, 200 feet wide and trends  $050^{\circ}$ . It has a maximum value of 62610 nT.

#### 9. CONCLUSIONS

Based upon the magnetic survey results, the Calder-Bousquet property warrants further exploration.

#### 10. RECOMMENDATIONS

- (a) Acquire mining rights for the ground immediately east and south of claim K645081.
- (b) Undertake a two phase exploration program designed to test the property's gold potential. The first phase would constitute surface work, including extensive outcrop mapping, sampling and assaying as well as geophysics and geochemistry. The cost of this phase would be approximately \$49,896.00. The second phase would constitute a diamond drilling program to test drill targets delineated in phase one and cost approximately \$83,939.63.

# 11. BUDGET PROPOSAL

Phase	One

1.	Claim staking - minimum 2 claims	\$	200.00
2.	Linecutting - 27 miles @ \$300/mile		8,100.00
3.	Geological mapping - 15 days @ \$300/day		4,500.00
4.	Geophysical survey: VLF-EM 27 line miles @ \$250/line mile	·	6,750.00
5.	Geochemical survey		5,000.00
6.	Processing Costs 250 rock samples @ \$10/sample 1250 soil samples @ \$9/sample	1	3,750.00
7.	Accommodations 2 men - 20 days @ \$60/day per man		2,400.00
8.	Transportation - plane fare, vehicle rental, shipping costs		2,000.00
9.	Communications		250.00
10.	Consumables		250.00
	·	\$4	3,200.00
11.	Engineering and supervision - 5%		2,160.00
		4	5,360.00
12.	Contingencies at 10%		4,536.00
	TOTAL	\$4	9,896.00

#### Phase Two

\$60,000.00
6,375.00
2,000.00
1,800.00
gs costs 2,000.00
250.00
250.00
72,675.00
3,633.75
76,308.75
7,630.88
£ \$83,939.63

Respectfully submitted

A.C.A. HOWE INTERNATIONAL LTD.

Vernon M. Shein, B.Sc.

#### **CERTIFICATE**

- I, Vernon Morgan Shein of 36 Dianne Drive, St. Catherines, Ontario, hereby certify that:
- 1. I am a geologist and am currently acting on a contract basis for A.C.A. Howe International Limited, Mining and Geological Consultants, with offices at Suite 800, 159 Bay Street, Toronto, Ontario, M5J 1J7.
- I am a graduate of Concordia University, Montreal, Quebec with a Bachelor of Science degree (1982); specialization Geology.
- I have no interest in the Calder-Bousquet gold property owned by Mistango Consolidated Resources Limited, nor do I anticipate such interest.
- 4. This report is based on geophysical work performed by myself and Mr. Ken Baldwin during the months of February and March, 1984.

Vernon M. Shein, B.Sc.



(Geophysical, Geochemical



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Claim Holder(s) DAVID PE	TRUNKA # . 2	5944	# 4	m. D. Mai	DE HOUSE	L TWP M-3370 Prospector's Licence No.
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2 CARLTON	SUITE 901	TURC	onto,	MSB IJ	3	
2 CARLIDAY Survey Company A.C.A. HOWE	INTERNATION	VAL 1	LTD	Dete of Survey	(from & to) 14 104 0 rr. Day Mi	3 84 Total Miles of line Cut 24 (FLACCED)
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Special Provisions	Geophysical	Days per Claim	Prefix	lining Claim Number	Expend, Days Cr.	Mining Claim Expand Prefix Number Days Of
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For each additional survey:	- Radiometric			645075		
using the same grid: Enter 20 days (for each)	- Other		1	645076		
	Geological			645077		
	Geochemical			645078		
Men Days	Geophysical	Days per Claim		645079		
Complete reverse side and enter total(s) here	- Electromagnetic			645080		:
	- Magnetometer			645081		<b>D</b>
	- Radiometric		•	645082		RECEIVED
	- Other			645083		
	Geological			645084		
	Geochemical			645104	M	NING LANDS SECTION
Airborne Credits		Days per Claim	•	645105		SECTION
Note: Special provisions	Electromagnetic			645 106		
credits do not apply to Airborne Surveys.	Magnetometer			645107	<del>                                     </del>	<del>-</del>
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Type of Work Performed				645109	<del></del>	Dinervil
Performed on Claim(s)				645110	<u> </u>	10 MAR 7 1984
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Calculation of Expenditure Day	s Credits	Total			<b> </b>	
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Instructions Total Days Credits may be a	pportioned at the claim I	holder's		For Office Use O		report of work.
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or witnessed same during and	d/or after its completion				UI TYUTK ANNEXE	d hereto, having performed the work
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1362 (81/9)



Geotechnical Report Approval

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Mining Lands Cor	nments	3331 3331 3331	
GRID	LAYOUT CONTROL	ADEQUATE?	eg. 6 of report.
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To: Geophysics	R. BARLOW		<u> </u>
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Comments			
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Comments		<del></del>	
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Approved	Wish to see again with corrections	Dete	Signature
To: Mining I and	Section, Room 6462, Whitney Block.	(Tel: 5-1380)	
(81/10)			

# MISTANGO CONSOLIDATED RESOURCES LIMITED

Head Office Suite 402 27 Queen Street East Toronto, Canada MSC 2M6 Telaphona: (416) 363-0411

2.6650

Executive Office Suite 901 2 Cariton Street Toronto, Canada M5B 1J3 Telephone: (416) 583-4477

July 26, 1984

Mr. S.E. Yundt
Director
Land Management Branch
Whitney Block, Room 6643
Queen's Park
Toronto
Ontario
M7A 1W3

Dear Sirs:

Re: File No: 2.6650

Geophysical (Magnetometer)

Survey submitted on Mining Claims K645073

et al in the Township of Laval

RECEIVED
Lead Management Branch
CORNELLATE
SOUTHING PLEASE

1984

W. P. LROOK
R. CE43

Enclosed is a plan for the above mentioned survey showing all the claim lines and claim numbers. Please contact me if further information is needed.

Yours truly,
MISTANGO CONSOLIDATED RESOURCES LIMITED

G.W. Hedican President RECEIVED

AUG 0 1 1984

MINING LANDS SECTION

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July 11, 1984 File: 2.6650 David Petrunka & Mm. D. Morehouse c/o Mistango Resources Ltd Suite 901 2 Carlton Street Toronto, Ontario M5B 1J3 Dear Sirs: RE: Geophysical (Magnetometer) Survey submitted on Mining Claims K 645073 et al in the Township of Laval Enclosed is the plan (in duplicate) for the above-mentioned survey. Please show all claim lines and claim number on the plans and return them to this office quoting file 2.6650. For further information, please contact Mr. Ray Pichette at (416)965-4888. Yours sincerely.

> S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario N7A 1W3

S. Hurst:mc

cc: Hining Recorder Kenora, Ontario

Encl.

April 27, 1984

Your File: 64 Our File: 2.6650

Mr. Wade S. Mathew Mining Recorder Ministry of Natural Resources 808 Robertson Street Box 5080 Kenora, Ontario P9N 3X9

#### Dear Sir:

We have received reports and maps for a Geophysical (Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims K 645073 et al in the Township of Laval.

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

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-6918

#### A. Barr:mc

cc: David Petrunka
Wm. D. Morehouse
c/o Mistango Consolidated Resources Limited
Suite 901
2 Carlton Street
Toronto, Ontario
M5B 1J3

# Ontario

837 (5/79)

# **Ministry of Natural Resources**

# GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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

Type of Survey(s) TETAL MACNETIC FIELD STRENGTH	
Township or Area LAVAL TOWNSHIP	MINING CLAIMS TRAVERSED
Claim Holder(s) MISTENSO CONSCIPSION RESCUES CO	List numerically
Survey Company A.C.A. LUNE INSERNATIONAL LID	K 145: 73
Author of Report VERNIN M SHEIN	(prefix) (number) (・与らょうな
Address of Author 36 Days 198 Day STCP PERSONS C VT	
Covering Dates of Survey FER 20 - MAR. 5 1924 (finecutting to office)	145.76
Total Miles of Line Cut 12 MILES FLACLED	
	(-5, -7
SPECIAL PROVISIONS DAYS	.45:37
CREDITS REQUESTED Geophysical per daim	(45/7)
ENTER 40 days (includes ————————————————————————————————————	
line cutting) for first  -Magnetometer	1451
surveyRadiometric	1451 71
ENTER 20 days for each —Other	
additional survey using Geological	
same grid.  Geochemical	047773
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)	
MagnetometerElectromagneticRadiometric	:45 <b>/</b> 2-4
(enter days per claim)	
DATE: 14-04-15 SIGNATURE: 150-70 11. Shin	
Autor of Aspert of Agent	(4811)
•	646767
Res. Geol. Qualifications	(4511)
Previous Surveys	
File No. Type Date Claim Holder	145164
KENORA  HINING DIV.	(45/17
	/ <del>-</del> 5+-
Ark 2.7 1984	
	•••••
7 <sub>18</sub> .9:10:11 <sub>1</sub> 12:112:3:4:5.6	
	TOTAL CLAIMS 7;

#### **GEOPHYSICAL TECHNICAL DATA**

GROUND SURVEYS - If more than one survey, specify data for each type of survey 910 Number of Readings 760 Number of Stations \_\_\_\_ Station interval 100 FEET Line spacing 100 YARDS Profile scale\_\_\_\_ Contour interval 100 nT Instrument BARRINGER PFM MODEL GM-122 Accuracy - Scale constant 58 ccc n T SUSCEPTIBILITY Diurnal correction method BASE STATION LINE, Base Station check-in interval (hours) 2 Base Station location and value BASELINE Instrument \_\_\_\_\_ ELECTROMAGNETIC Coil configuration \_\_\_\_\_ Coil separation \_\_\_\_\_ Accuracy \_\_\_\_\_ ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line Method: Frequency\_\_\_\_ (specify V.L.F. station) Parameters measured\_\_\_\_\_ Instrument \_\_\_\_\_ Scale constant \_\_\_\_ Base station value and location \_\_\_\_\_ Elevation accuracy\_\_\_\_\_ Instrument \_\_\_\_\_ ☐ Frequency Domain NDUCED POLARIZATION Parameters - On time \_\_\_\_\_\_ Frequency \_\_\_\_\_ - Off time \_\_\_\_\_\_ Range \_\_\_\_\_ - Delay time \_\_\_\_\_ - Integration time \_\_\_\_\_ Electrode array Electrode spacing Type of electrode \_\_\_\_

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# MISTANGO CONSOLIDATED RESOURCES LIMITED

Head Office Suite 402 27 Queen Street East Toronto, Canada M5C 2M6 Telephone: (416) 363-0411

April 11, 1984

Ministry of Natural Resources 808 Robertson Street P.O. Box 5080 Kenora Ontario P9N 3X9

Attn: Mr. Wade S. Mathew Mining Recorder\_\_

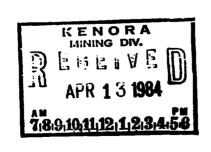
Dear Mr. Mathew:

Enclosed are 2 reports on recent work done on the claims in the Laval Townships, Kenora Mining Division.

Yours truly,
MISTANGO CONSOLIDATED RESOURCES LIMITED

Gerald W. Hedican

President



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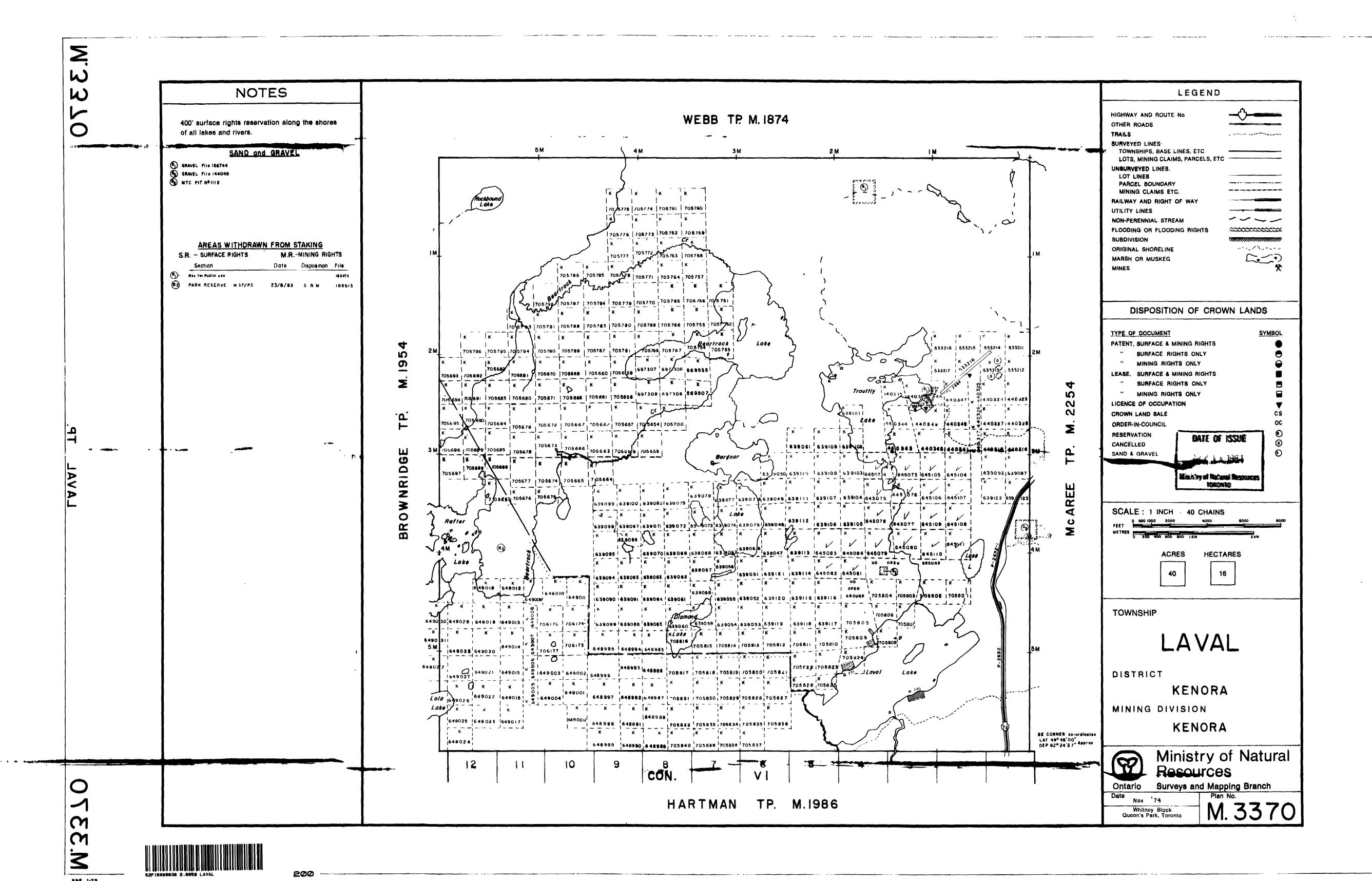
APR 18 1994

MINING LANDS SECTION

encl



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