Westmin Mines Ltd.

Jutten Twp. Project

Hackett Lake Grid

Report on Ground Geophysical Surveys and Geological Mapping

N.T.S. 52 J/7

Latitude 50°22'N

Longitude 90°29'W

October 1, 1989

C. J. Rockingham, M.Sc.

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Maps

Introduction:

Westmin Mines Limited acquired an additional 8 claims (Pa1043476-483 incl.) in Jutten Township in January 1989. Interest in the area was prompted by the results of previous exploration (trenching and diamond drilling) on ground to the southwest of the claims and the patented claims to the northeast. Ground geophysical surveys (magnetometer, VLF-EM) were undertaken in January 1989 and July 1989.

Location, Access and Topography:

The Jutten claims (Figure 1) are located approximately 240 kilometres northwest of Thunder Bay and 10 kilometres northeast of the town of Savant Lake, Ontario (N.T.S. 52 J/7). Access to the property is by boat (summer) or skidoo (winter) from a tourist lodge 5 kilometres to the north. The lodge is linked to Highway 599 by a tractor road. Topographic relief is generally low (5 metres) but may be steep (scarps up to 25 metres) in areas of outcrop.

Westmin Mines Limited has 100% interest in the claims (Figure 2, Table 1).

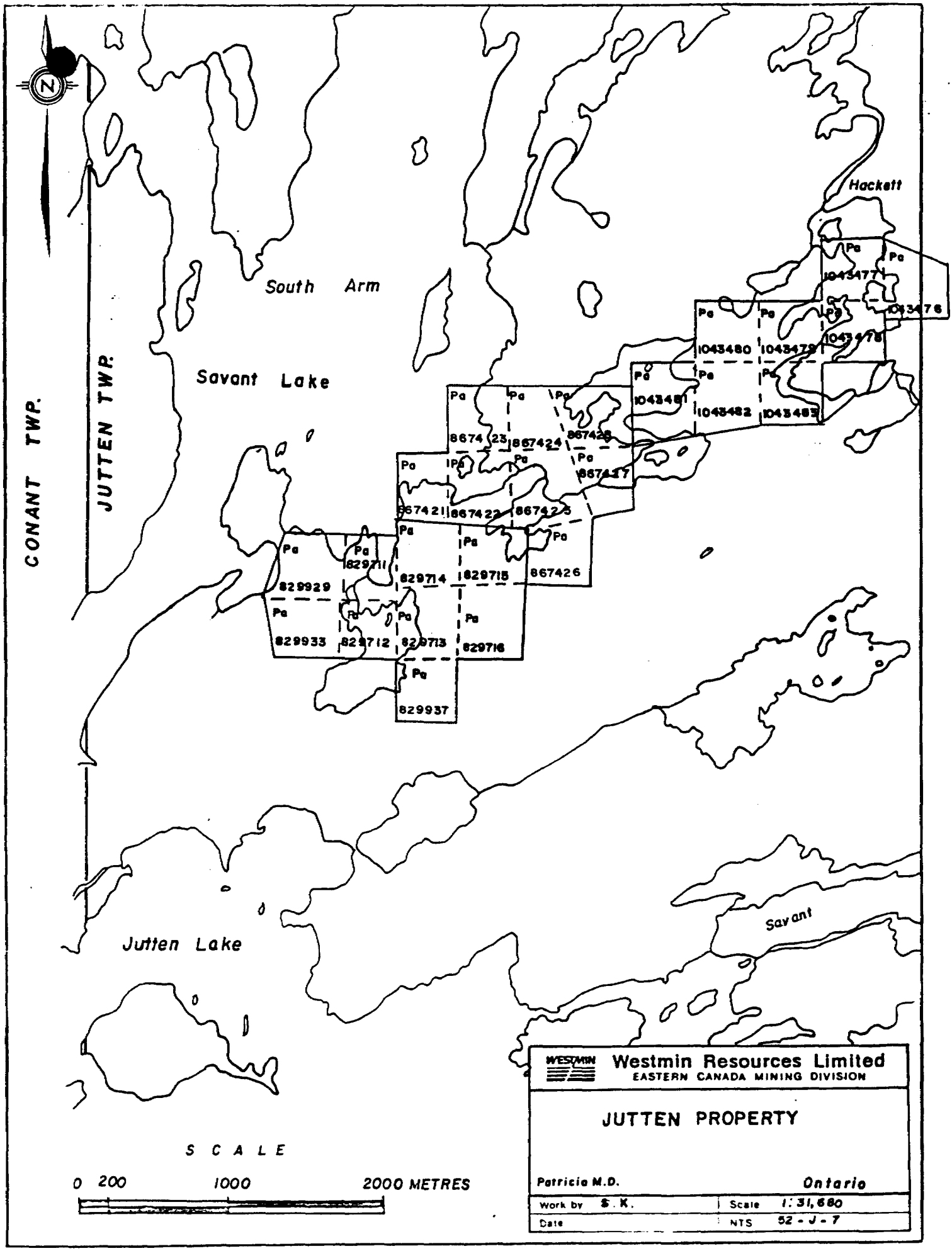
Geophysics:

In January 1986, a total of 10.8 kilometres of linecutting was completed on the claims to provide control for the geophysical surveys. Lines are spaced 100 metre intervals with stakes chained in at 25 metres along the lines as control for the survey. G. Lafortune (Sudbury, Ontario) carried out the geophysics and linecutting.

Survey Methods:

Magnetometer Survey (See map, back pocket)

Total coverage of the grid (10.8 km) was completed using the McPhar M-700 fluxgate magnetometer and readings were taken at 25 metre intervals along the lines. The data was corrected for diurnal variation by reading loops along the base line between reading individual lines. The results are contoured at 100 gamma intervals.


N
CONANT TWP.
JUTTEN TWP.
South Arm
Savant Lake
Hackett
Jutten Lake
Savant
Pa
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SCALE
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Westmin Resources Limited
EASTERN CANADA MINING DIVISION
JUTTEN PROPERTY
Patricia M.D.
Ontario
Work by S.K.
Scale 1:31,680
Date
NTS 52-J-7

50''
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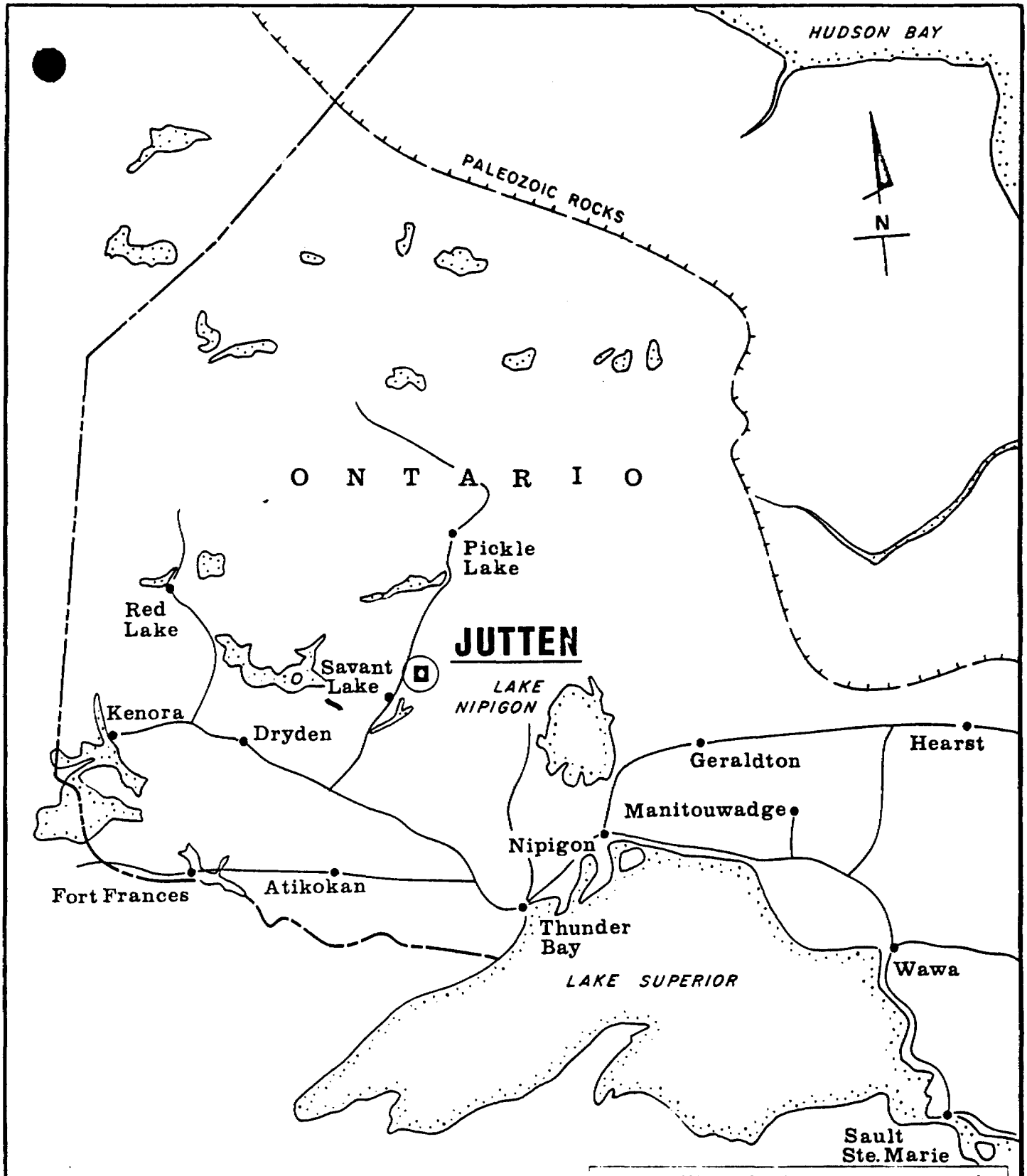


Westmin Resources Limited
EASTERN CANADA

LOCATION MAP
N.W. ONTARIO

Work by	Scale 1: 5,000,000
Date	NTS

JUTTEN PROJECT - PROPERTY STATUS

Location: Jutten Township (G-2874), Patricia Mining Division, Ontario
N.T.S. 52-J-7

Equity: Westmin Mines Limited 100% (Licence T-4638)

Claims	Recording Date	Assessment Due Date	Days Filed	Lease Due
Pa 829711	12 Feb.1985	Completed	216	*12 Feb.1991
Pa 829712	12 Feb.1985	Completed	217	*12 Feb.1991
Pa 829713	26 Feb.1985	Completed	216	*26 Feb.1991
Pa 829714	26 Feb.1985	Completed	222	*26 Feb.1991
Pa 829715	26 Feb.1985	Completed	222	*26 Feb.1991
Pa 829716	26 Feb.1985	Completed	216	*26 Feb.1991
Pa 829929	12 Feb.1985	Completed	226	*12 Feb.1991
Pa 829933	12 Feb.1985	Completed	224	*12 Feb.1991
Pa 829937	12 Feb.1985	Completed	216	*12 Feb.1991
Pa 867421	21 Jan.1986	Completed	210	*21 Jan.1992
Pa 867422	21 Jan.1986	Completed	218	*21 Jan.1992
Pa 867423	21 Jan.1986	Completed	210	*21 Jan.1992
Pa 867424	21 Jan.1986	Completed	210	*21 Jan.1992
Pa 867425	21 Jan.1986	Completed	220	*21 Jan.1992
Pa 867426	21 Jan.1986	Completed	210	*21 Jan.1992
Pa 867427	21 Jan.1986	Completed	210	*21 Jan.1992
Pa 867428	21 Jan.1986	Completed	220	*21 Jan.1992
Pa 1043476	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043477	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043478	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043479	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043480	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043481	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043482	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995
Pa 1043483	24 Jan.1989	24 Jan.1990	Nil	24 Jan.1995

25 claims = 400 ha

* Legal Survey Completed.

Date: 20 October 1989

VLF-EM Survey:

All VLF readings were taken facing north and reading the Seattle Washington transmitter. Readings were taken at 25 metre intervals along the line and are plotted on the map with a profile of the in-phase and quadrature.

All conductors are generally poor quality with fairly broad crossovers and a flat quadrature response indicative of conductive overburden. The possible exception to this is the conductor that is just south of the baseline between lines 400E and 800E. Here there is abundant outcrop although no conductive features were noted during the mapping. Other conductors are generally in the lakes or coincident with a creek flowing between lines 4E and 8E north of the baseline. Magnetic correlation with conductors is absent except on line 12E at 100N where there is a one station magnetic low with a very weak VLF crossover.

Geology:

Geological mapping was completed in July in conjunction with the geophysics. The map area has abundant outcrop particularly along the lakeshore. Inland there is locally abundant outcrop with a thin cover of humus and soil. With the exception of one small exposure of more intermediate rock (Base Line at 4+50E) all outcrops are basalt flows. The basalts are massive dark green medium to fine grained. Pillow structures are locally present. The flows strike from 45-70 east of north with a steep southeast dip. Stratigraphic tops, where they could be determined, are to the southeast. One outcrop at 1+60N, 3+60E is a variolitic basalt. No significant sulfide concentrations were noted. One two metre thick discordant quartz vein was noted at 7+90E, 3+40S but this contained less than 5 ppb gold.

C. J. Rockingham

C. J. Rockingham, M.Sc.

Qual 2.3164

Appendix 1

Specification for Geophysical Equipment

McPHAR

M700 MAGNETOMETER

SPECIFICATIONS

2–1 MAXIMUM SENSITIVITY

20 gammas per scale division on 1,000 gamma range.
Readability is 1/4 scale division or 5 gammas.

2–2 MAXIMUM MEASUREMENT

Zero to ± 100,000 gammas in five ranges.

Range Switch Position	Full Scale In Gammas	Gammas Per Scale Division
1K	1,000	20 black scale
3K	3,000	50 red scale
10K	10,000	200 black scale
30K	30,000	500 red scale
100K	100,000	2,000 black scale

2–3 MEASUREMENT POLARITY

The above ranges can be reversed in polarity as a simple function of the Polarity switch.

2–4 LATITUDE ADJUSTMENT

The latitude adjustment permits cancelling the earth's field up to a magnitude of ± 100,000 gammas. The adjustment control is a ten revolution precision potentiometer located under the sliding side panel. A positive type locking lever on the control removes the hazard of accidentally dislodging the setting.

2–5 SELF-LEVELLING SENSING HEAD

The unique self-levelling sensing head of this magnetometer is inserted as a plug-in unit. It is easily detached so that the same magnetometer can be used with other types of sensing heads such as the airborne gyro stabilized head etc.
It is recommended that the instrument be re-calibrated at our servicing depot, each time the sensing head is changed.

2–6 ORIENTATION ERROR

The orientation error is set at the factory to 25 gammas or less in the presence of a 15,000 gamma horizontal field. It is possible to adjust the orientation error and the procedure is explained in the section 9–2 under Maintenance.

2–7 TEMPERATURE STABILITY

Over the temperature range of –35 to +55 degrees centigrade the temperature drift is limited to less than 50 gammas. See section 4–6 on Minimizing Temperature Drift.

2–8 BATTERY SUPPLY

The M700 Magnetometer is powered by two internally mounted 9 volt batteries. Any pair of the following batteries may be used.

Eveready No. 276
Mallory No. M1603
Burgess No. D6
R. C. A. No. VS306

For sub-zero operation the batteries may be transferred to an external battery case and carried under clothing to keep them from freezing. **See section 6, Operation with External Batteries.**

Two types of external battery cases are available **see accessory list, section 11.** One type is for the above batteries. Another type of case will accommodate the equivalent in flashlight cells for use in countries where the normal batteries are difficult to obtain.

2–9 ACCESSORY RECEPTACLE

A Cannon receptacle is located on the side of the instrument under the sliding panel. This increases the versatility of the instrument so it can be used in a number of ways in addition to its normal vertical field ground magnetometer function. See section 8, under Extended Applications and section 11, under Accessories.

2–10 ACCESSORY & LATITUDE SWITCH

This is a double function switch. The first function is to permit operation north or south of the equator by simply changing one step

2–10 ACCESSORY & LATITUDE SWITCH (Cont'd.)

on the switch. By switching an additional step, the accessory socket is brought into connection and accessories can be applied to the instrument.

2–11 WEIGHT

The weight of the magnetometer is distributed as follows:–

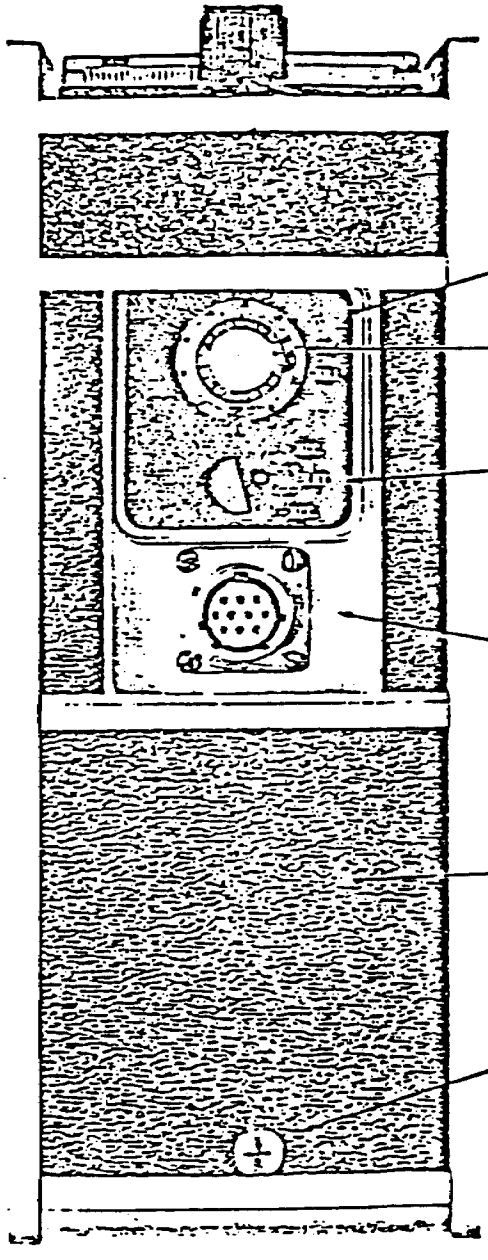
Console:	6 pounds
Batteries:	1–1/4 pounds 2 type Eveready 276
Carrying Case:	2 pounds

2–12 MAGNETOMETER DIMENSIONS

Width:	6–7/8 inches
Depth:	3–3/4 inches
Height:	9–5/8 inches

2–13 TRANSIT CASE

The magnetometer is shipped in a foam fitted transit case. The case is designed to accommodate the magnetometer in its leather case, spare batteries, external battery cable and battery case and instruction manual.



EM 16

Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

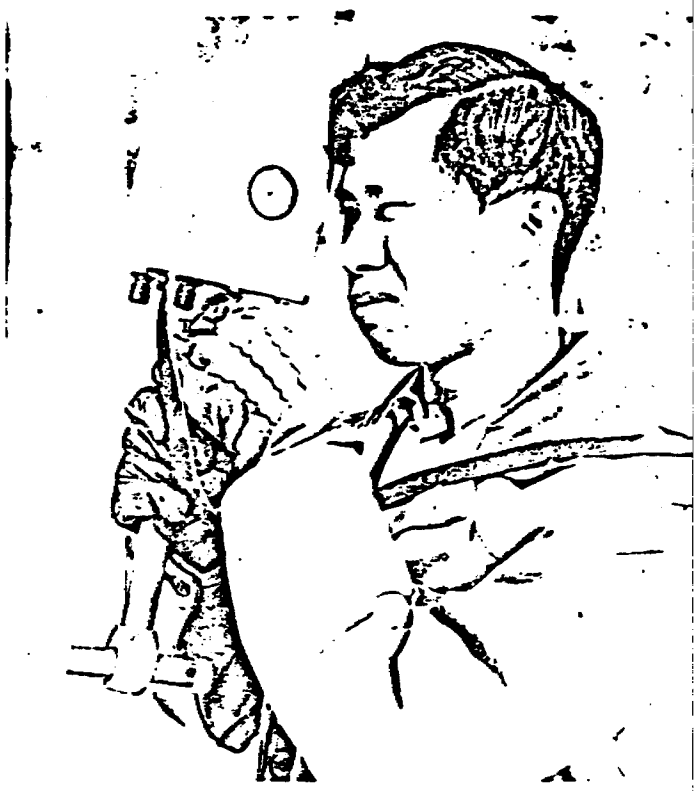
Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature* components of the secondary field *with the polarities indicated.*

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

Principle of Operation
The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.



Specifications

Source of primary field	VLF transmitting stations.
Transmitting stations used	Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.
Operating frequency range	About 15-25 kHz.
Parameters measured	(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).
Method of reading	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone.
Scale range	In-phase ± 150%; quadrature ± 40%.
Readability	± 1%.

Reading time	10-40 seconds depending on signa strength.
Operating temperature range	−40 to 50° C.
Operating controls	ON-OFF switch, battery testing pu button, station selector, switch, volume control, quadrature, dial ± 40%, inclinometer dial ± 150%
Power Supply	6 size AA (penlight) alkaline cells. Life about 200 hours.
Dimensions	42 x 14 x 9 cm (16 x 5.5 x 3.5 in.)
Weight	1.6 kg (3.5 lbs.)
Instrument supplied with	Monotonic speaker, carrying case manual of operation, 3 station sele plug-in tuning units (additional fre quencies are optional), set of batt
Shipping weight	4.5 kg (10 lbs.)

GEONICS LIMITED
Designers & Manufacturers of Geophysical Instruments
1745 Meyerside Drive, Unit 8
Mississauga/Ontario/Canada
L5T 1C5
Tel: (416) 676-9580
Cables: Geonics

Certification

I, Christopher J. Rockingham, of 765 Millwood Road, Toronto, Ontario, M4G 1V7, certify the following facts:

1) I am a Fellow of the Geological Association of Canada.
2) I hold a B.Sc., in Chemistry and Biology obtained from the University of Toronto in 1972 and a M.Sc. in geology obtained from the Univeristy of Western Ontario in 1979.
3) I have practised my profession for 14 years working in Canada, Australia and Southern Africa.
4) I have supervised the work and interpreted the results mentioned in the foregoing report.
5) I have no financial interest in this property.

October 1989

C. J. Rockingham

Christopher J. Rockingham, B.Sc.,M.Sc.

900

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-488

March 22, 1990

Your File: W8903-151
Our File: 2.12829

Mining Recorder
Ministry of Northern Development and Mines
Court House
P.O. Box 3000
Sioux Lookout, Ontario
P0V 2T0

Dear Sir:

Re: Notice of Intent dated January 22, 1990 for Geological & Geophysical (Electromagnetic & Magnetometer) Survey submitted on Mining Claims PA 1043476 et al in Jutten Township.

The assessment work credits, as listed with the above-mentioned Notice 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
Provincial Manager, Mining Lands
Mines & Minerals Division

DM:pt
Enclosure

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

Resident Geologist
Sioux Lookout, Ontario

Westmin Mines Limited
Toronto, Ontario

Ministry of Northern Development and Mines

Ontario

DOCUMENT No. W8903• 15/

Instructions
- Please type or print.
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch:

Mining Act

Report of Work
(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s)	Mining Division	Township or Area
Geological and Geophysical	Patricia	Jutten (G-2874)

Recorded Holder(s)	Prospector's Licence No.
Westmin Mines Limited 2.12829	T-4638
Address	**Telephone No.**
25 Adelaide St. E.,#1400, Toronto, Ont. M5C 1Y2	416-364-8116
Survey Company	
Westmin Resources Limited	
Name and Address of Author (of Geo-Technical Report)	**Date of Survey (from & to)**
C.J.Rockingham, 25 Adelaide St.E.,Toronto, Ont.M5C 1Y2	Day 03 Mo. 01 Yr. 89 — Day 10 Mo. 07 Yr. 89

Credits Requested per Each Claim in Columns at right

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
Pa	1043476				
Pa	1043477				
Pa	1043478				
Pa	1043479				
Pa	1043480				
Pa	1043481				
Pa	1043482				
Pa	1043483				

Total number of mining claims covered by this report of work: 8

Date: 19 Oct.1989

Recorded Holder or Agent (Signature): Shyrojanov

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: C.J.Rockingham,25 Adelaide St.East, #1400, Toronto, Ontario M5C 1Y2

Telephone No.	Date	Certified By (Signature)
416-364-8116	19 Oct.1989	C. Rockingham

For Office Use Only

DOCUMENT No. W8903• 15/

Total Days Cr. Recorded	Date Recorded	Mining Recorder
640	Oct 23, 1989	Acting Louis Moses
	Date Approved as Recorded	**Provincial Manager, Mining Lands**
	See revised	work statement

Received Stamp: RECEIVED OCT 23 1989 PATRICIA MINING DIVISION

1962 (89/06)

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.12829

Date: Jan. 19, 1990

Mining Recorder's Report of Work No.: W8903.151

Recorded Holder: Westmin Mines Ltd.

Township or Area: Jutten

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	PA-1043476 - 483 incl.
Electromagnetic 40 days	
Magnetometer 20 days	
Radiometric ____ days	
Induced polarization ____ days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 15.6 days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

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

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.

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-4888

February 22, 1990

Your File: W8903.151
Our File: 2.12829

Mining Recorder
Ministry of Northern Development and Mines
Court House
P.O. Box 3000
Sioux Lockout, Ontario
POV 2T2

Dear Sir:

Re: Notice of Intent dated January 22, 1990 for Geological and Geophysical Survey Submitted on Mining Claims PA 1043476 et al in Township of Jutten.

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,

Bill Stewart

for W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

LS:pt
Enclosure

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

Resident Geologist
Sioux Lockout, Ontario

Westmin Mines Ltd
Toronto, Ontario

Ministry of Northern Development and Mines

Technical Assessment Work Credits

File: 2.12829

Date: Jan. 19, 1990

Mining Recorder's Report of Work No.: W8903.151

Recorded Holder: Westmin Mines Ltd.

Township or Area: Jutten

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
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Electromagnetic 40 days	
Magnetometer 20 days	
Radiometric ____ days	
Induced polarization ____ days	
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Geological 15.6 days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
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Ministry of Northern Development and Mines

Ontario

DOCUMENT No. W8903• 15/

Mining Act

Report of Work

(Geophysical, Geological and Geochemical Surveys)

Instructions
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- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch:

Type of Survey(s)	Mining Division	Township or Area
Geological and Geophysical	Patricia	Jutten (G-2874)

Recorded Holder(s) Westmin Mines Limited 2.12829 — **Prospector's Licence No.** T-4638

Address 25 Adelaide St. E.,#1400, Toronto, Ont. M5C 1Y2 — **Telephone No.** 416-364-8116

Survey Company Westmin Resources Limited

Name and Address of Author (of Geo-Technical Report) C.J.Rockingham, 25 Adelaide St.E.,Toronto, Ont.M5C 1Y2

Date of Survey (from & to) 03 (Day) 01 (Mo.) 89 (Yr.) — 10 (Day) 07 (Mo.) 89 (Yr.)

Credits Requested per Each Claim in Columns at right

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

Total miles flown over claim(s).

Date: 19 Oct.1989 — Recorded Holder or Agent (Signature): Shypojanov

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
Pa	1043476				
Pa	1043477				
Pa	1043478				
Pa	1043479				
Pa	1043480				
Pa	1043481				
Pa	1043482				
Pa	1043483				

Total number of mining claims covered by this report of work: 8

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: C.J.Rockingham,25 Adelaide St.East, #1400, Toronto, Ontario M5C 1Y2

Telephone No. 416-364-8116 — Date: 19 Oct.1989 — Certified By (Signature): C. Rockingham

For Office Use Only

DOCUMENT No. W8903• 15/

Received Stamp: RECEIVED OCT 23 1989 PATRICIA MINING DIVISION

Total Days Cr. Recorded	Date Recorded	Mining Recorder
640	Oct 23, 1989	Doris Hodges
	Date Approved as Recorded	Provincial Manager, Mining Lands
	See revised	work statement

1962 (89/06)

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL
TECHNICAL DATA STATEMENT

2.12829

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) Geophysical and Geological
Township or Area Jutten
Claim Holder(s) Westmin Mines Limited

Survey Company Westmin Resources Limited
Author of Report C.J.Rockingham
Address of Author 25 Adelaide St.E.#1400,Toronto Ontario M5C 1Y2
Covering Dates of Survey 3 January-10 July 1989 (linecutting to office)
Total Miles of Line Cut 10.8 km

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

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

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

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

DATE: 20 Oct. 1989 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 2.3164

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
Pa	1043476
Pa	1043477
Pa	1043478
Pa	1043479
Pa	1043480
Pa	1043481
Pa	1043482
Pa	1043483

If space insufficient, attach list

RECEIVED
OCT 24 1989
MINING LANDS SECTION

TOTAL CLAIMS 8

GEOPHYSICAL TECHNICAL DATA

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

	VLF	Mag
Number of Stations	469	469
Number of Readings	1,012	
Station interval	25 m	
Line spacing	100 m	
Profile scale	1 cm = 20%	
Contour interval	100 γ	

MAGNETIC

Instrument: Mc Phar M-700 fluxgate magnetometer

Accuracy – Scale constant: ± 5 gammas

Diurnal correction method: Reading loops along the base line between individual lines

Base Station check-in interval (hours): N/A

Base Station location and value: N/A

ELECTROMAGNETIC

Instrument: ~~Geonics EM-16~~

Coil configuration: N/A

Coil separation: ~~N/A~~

Accuracy: ± 1%

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

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

Parameters measured: In phase, quadrature

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION
RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time — Frequency

– Off time — Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken_____

Total Number of Samples_____

Type of Sample_____
(Nature of Material)

Average Sample Weight_____

Method of Collection_____

Soil Horizon Sampled_____

Horizon Development_____

Sample Depth_____

Terrain_____

Drainage Development_____

Estimated Range of Overburden Thickness_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis_____

General_____

ANALYTICAL METHODS

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

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

Others_____

Field Analysis (_____ tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Commercial Laboratory (_____ tests)

Name of Laboratory_____

Extraction Method_____

Analytical Method_____

Reagents Used_____

General_____

Ministry of Northern Development and Mines
Ontario

Mining Act

Report of Work
(Geophysical, Geological and Geochemical Surveys)

Instructions
- Please type or print
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type
- If number of mining claims traversed exceeds space on this form attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch

Type of Survey(s)	Mining Division	Township or Area
Geological and Geophysical	Patricia	Jutten (G-2874)

Recorded Holder(s)	Prospector's Licence No.
Westmin Mines Limited	T-4638

Address	Telephone No.
25 Adelaide St. E.,#1400, Toronto, Ont. M5C 1Y2	416-364-8116

Survey Company: Westmin Resources Limited

Name and Address of Author (of Geo-Technical Report)	Date of Survey (from & to)
C.J.Rockingham, 25 Adelaide St.E.,Toronto, Ont.M5C 1Y2	From: Day 03 Mo 01 Yr 89 — To: Day 07 Mo 10 Yr 89

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey:	Geophysical	
Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
For each additional survey using the same grid:	- Other	
Enter 20 days (for each)	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Other	

Total miles flown over claim(s).

Date	Recorded Holder or Agent (Signature)
19 Oct.1989	[signature]

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
Pa	1043476				
Pa	1043477				
Pa	1043478				
Pa	1043479				
Pa	1043480				
Pa	1043481				
Pa	1043482				
Pa	1043483				

COPY

Total number of mining claims covered by this report of work: 8

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: C.J.Rockingham,25 Adelaide St.East, #1400, Toronto, Ontario M5C 1Y2

Telephone No.	Date	Certified By (Signature)
416-364-8116	19 Oct.1989	[signature]

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Provincial Manager, Mining Lands

Received Stamp

1362 (89/06)

Salary Distribution

Westmin Resources Limited

DEPARTMENT Eastern Exploration

NAME GERRY LAFORTUNE MONTH JAN 19 89

DATE	PROJECT DESCRIPTION	AFE NO.	DATE	PROJECT DESCRIPTION	AFE NO.
1			16	SAVANT LAKE	
2			17	DITTO	
3	SAVANT LAKE		18	"	
4	DITTO		19	"	
5	"		20	"	
6	"		21	"	
7	"		22	"	
8	"		23	"	
9	"		24	"	
10	"		25	"	
11	"		26	JUTTEN	
12	"		27	"	
13	"		28	"	
14	"		29	"	
15	"		30	LITTLE STULL	
			31	DITTO	

EXPLORATION STAFF ONLY

Bonus days earned this month *	4½
Cumulative bonus days previous month	
Bonus days taken this month	
Cumulative bonus days end of month	4½

* The basic work week is 5 1/2 days per week monday to sunday.

DISTRIBUTION SUMMARY

Project	AFE No.	Days
Savant Lake		25
Little Stull		2
		27

Vacation Days Taken _____ Sick Days Taken _____

APPROVED _____

SIGNED _____

SPECIAL CODES

P - Public Holiday V - Paid Vacation S - Sick BD - Bonus Days Taken

Salary Distribution

Western Resources Limited

EASTERN

DEPARTMENT EXPLORATION

NAME JERRY LAFORTUNE MONTH JULY 19 89

DATE	PROJECT DESCRIPTION	AFE NO.	DATE	PROJECT DESCRIPTION	AFE NO.
1	CLEARWATER	1010	16		
2	DAY OFF		17		
3	JUTTEN	1051	18		
4	"	"	19		
5	"	"	20		
6	"	"	21		
7	"	"	22		
8	↓	"	23		
9	JUTTEN	"	24		
10			25		
1			26		
12			27		
13			28		
14			29		
15			30		
			31		

EXPLORATION STAFF ONLY

Bonus days earned this month *	1
Cumulative bonus days previous month	6
Bonus days taken this month	1
Cumulative bonus days end of month	6

* The basic work week is 5 1/2 days per week monday to sunday.

DISTRIBUTION SUMMARY

Project	AFE No.	Days
CLEARWATER		1
JUTTEN	CR.7	6
		8

Vacation Days Taken _____ Sick Days Taken _____

APPROVED

SIGNED

SPECIAL CODES

P - Public Holiday V - Paid Vacation S - Sick BD - Bonus Days Taken

Salary Distribution

Westmin Resources Limited

DEPARTMENT EXPLORATION

NAME ROCKINGHAM MONTH JULY 19 89

DATE	PROJECT DESCRIPTION	AFE NO.	DATE	PROJECT DESCRIPTION	AFE NO.
1	GOLD GEN	1027	16		
2	" "	"	17	VACATION	
3	JUTTEN	1051	18	"	
4	"	"	19	"	
5	"	"	20	"	
6	"	"	21	"	
7	"	"	22		
8	"	"	23		
9	"	"	24	VACATION	
10	"	"	25	B.D.	
11	VACATION		26	L. STULL	1013
12	"		27	"	"
13	"		28	" 1/2 B.D.	
14	"		29		
15			30		
			31	L. STULL	1013

EXPLORATION STAFF ONLY

Bonus days earned this month *	2 1/2
Cumulative bonus days previous month	5 1/2
Bonus days taken this month	—
Cumulative bonus days end of month	8

* The basic work week is 5 1/2 days per week monday to sunday.

DISTRIBUTION SUMMARY

Project	AFE No.	Days
GOLD GEN	1027	2
JUTTEN	1051	8
L. STULL	1013	3 1/2
		13 1/2

Vacation Days Taken 10 Sick Days Taken —

APPROVED

SIGNED C. Rockingham

SPECIAL CODES

P - Public Holiday V - Paid Vacation S - Sick BD - Bonus Days Taken

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

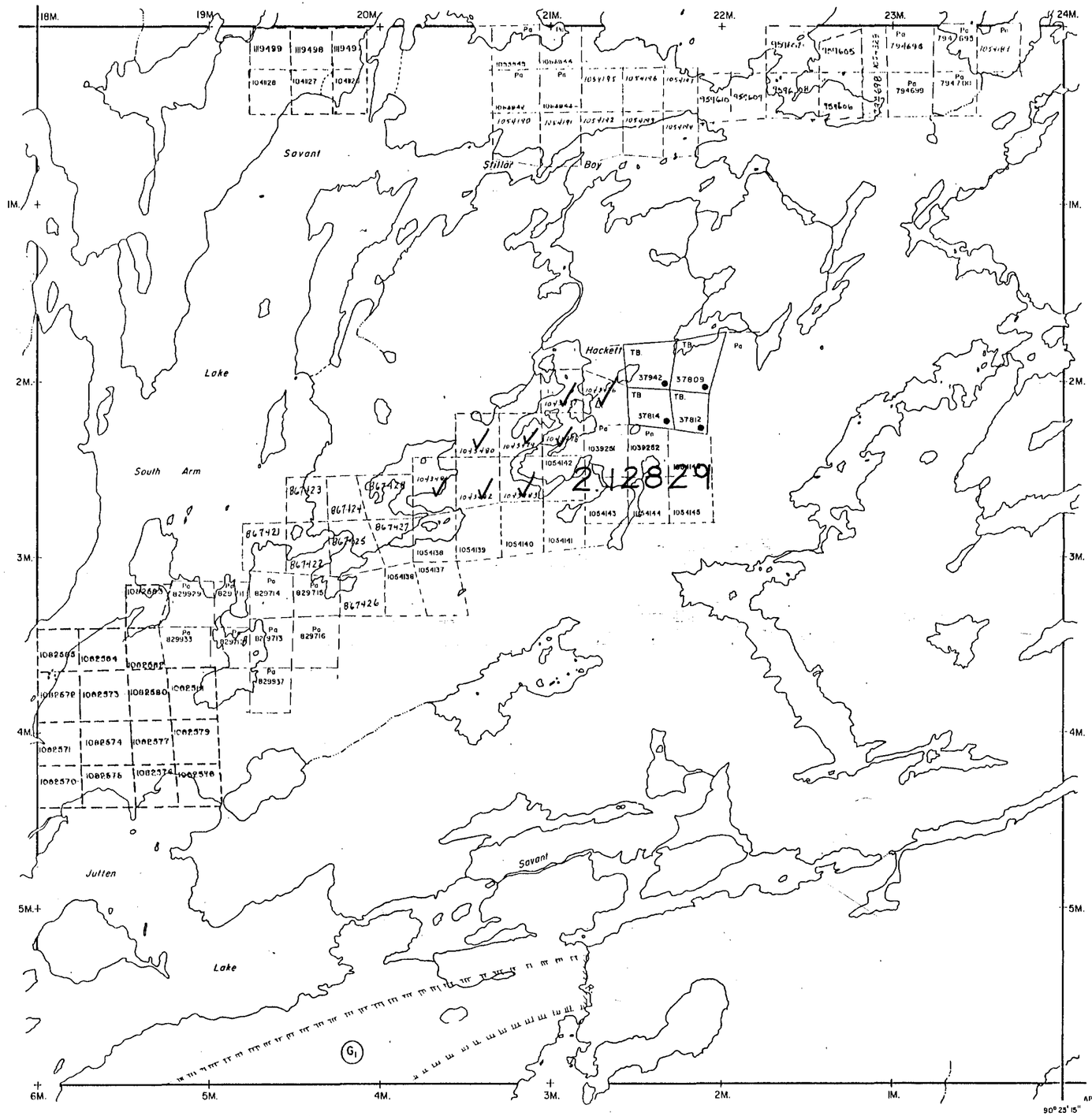
SAND AND GRAVEL

GRAVEL FILE Nº 194512

Aug 20/85
Aug 30/85
SEPT 5/85
Apr 17/86
June 4/86
Oct 1/86
Oct 27/86
June 2/87
JULY 13/87
Sept. 9/88
NOV. 4/88
89-01-26
89/04/17
OCT 27/89

200

POISSON TWP. G-2883



CONANT TWP. G-2887

SMYE TWP. M-1693

CHEVRIER TWP. M-1673

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	OC
RESERVATION	R
CANCELLED	
SAND & GRAVEL	G

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

JUTTEN

M.N.R. ADMINISTRATIVE DISTRICT

SIOUX LOOKOUT

MINING DIVISION

PATRICIA

LAND TITLES / REGISTRY DIVISION

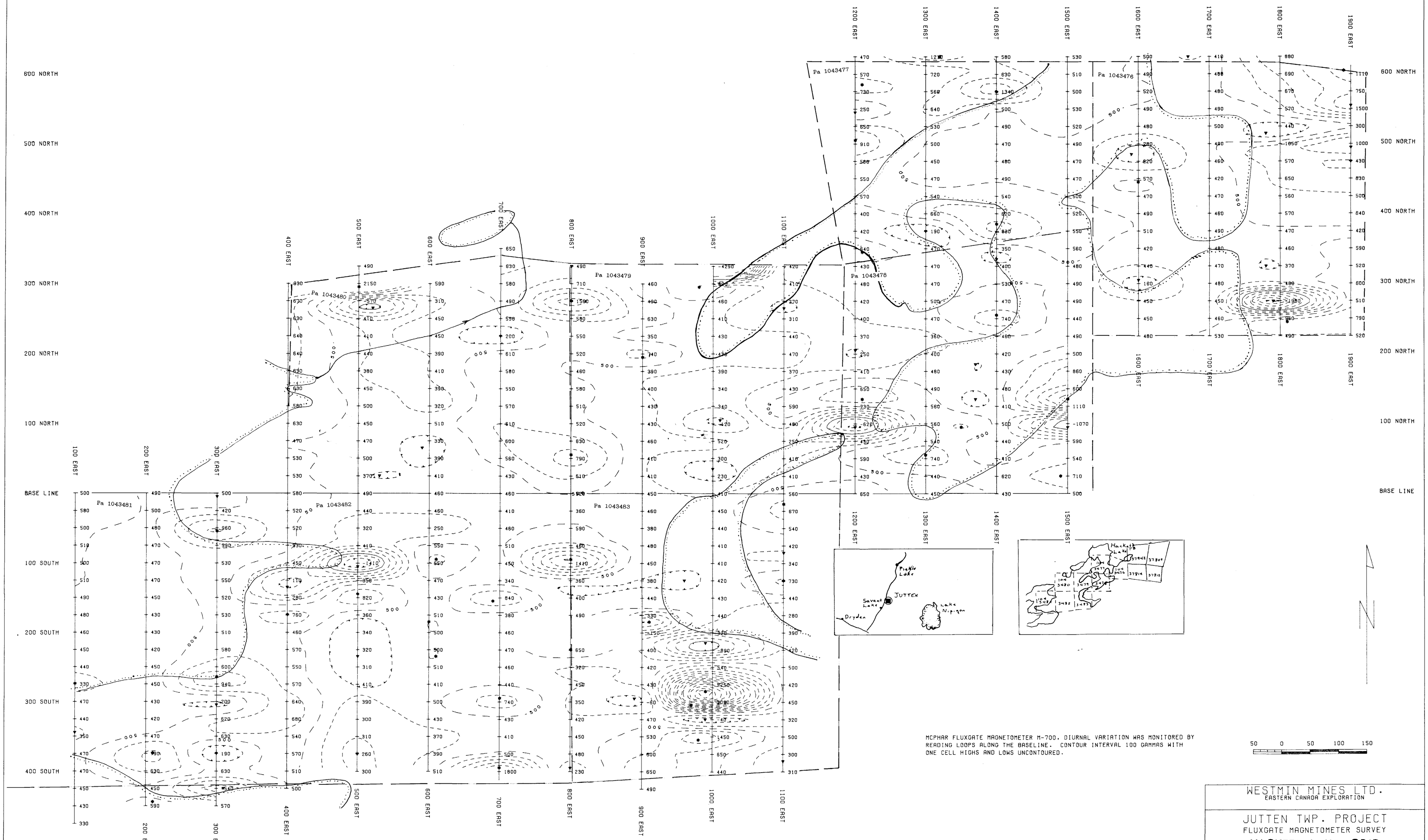
THUNDER BAY

Ministry of Natural Resources — Land Management Branch

Ontario

Date MAY 1985

Number G-2874



MCPHAR FLUXGATE MAGNETOMETER M-700, DIURNAL VARIATION WAS MONITORED BY READING LOOPS ALONG THE BASELINE. CONTOUR INTERVAL 100 GAMMAS WITH ONE CELL HIGHS AND LOWS UNCONTOURED.

50 0 50 100 150

WESTMIN MINES LTD.
EASTERN CANADA EXPLORATION

JUTTEN TWP. PROJECT
FLUXGATE MAGNETOMETER SURVEY
HACKETT LAKE GRID
2.12829

WORK BY: J. LAFORTUNE	SCALE 1:2000
DATE: JANUARY 1989	N.T.S. 52-J-7

52J08NW0834 2.12829 JUTTEN

300 NORTH

500 NORTH

400 NORTH

300 NORTH

200 NORTH

100 NORTH

BASE LINE

100 SOUTH

200 SOUTH

300 SOUTH

400 SOUTH

100 EAST 200 EAST 300 EAST 400 EAST 500 EAST 600 EAST 700 EAST 800 EAST 900 EAST 1000 EAST 1100 EAST 1200 EAST 1300 EAST 1400 EAST 1500 EAST 1600 EAST 1700 EAST 1800 EAST 1900 EAST

Pa 1043477

Pa 1043476

Pa 1043480

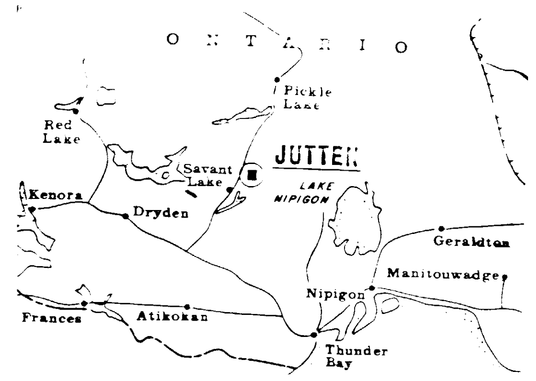
Pa 1043479

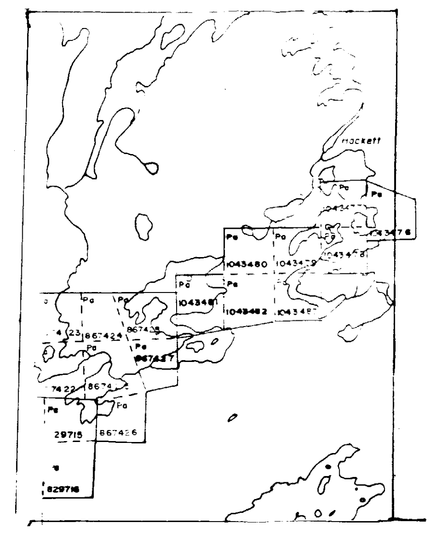
Pa 1043478

Pa 1043481

Pa 1043482

Pa 1043483





50 0 50 100 150

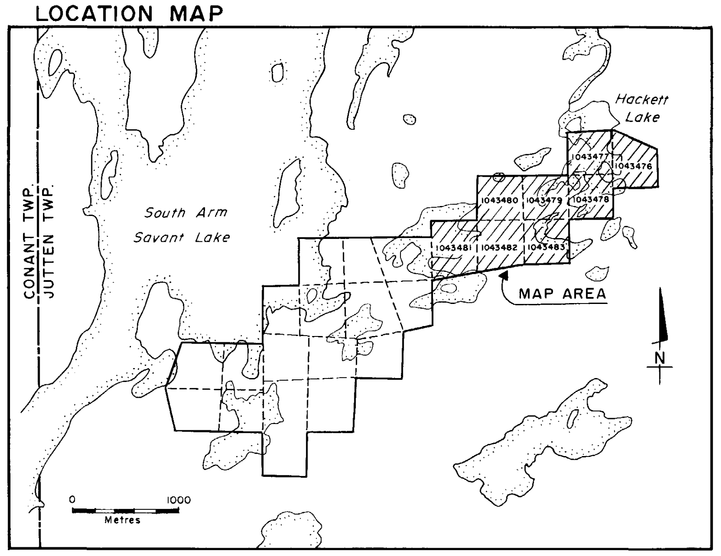
LEGEND
IN PHASE POSTED ON LEFT
IN PHASE = SOLID LINE
OUT OF PHASE POSTED ON RIGHT
OUT OF PHASE = DASHED LINE
PROFILE SCALE 1 CM = 20%
TX CUTLER MAINE

WESTMIN MINES LTD.
EASTERN CANADA EXPLORATION

JUTTEN TWP. PROJECT
VLF-EM SURVEY
HACKET LAKE GRID
2.12829

WORK BY: J. LAFORTUNE	SCALE 1:2000
DATE: JANUARY 1989	N.T.S 52 J-7

LOCATION MAP



LEGEND

- ■ CLAIM POST
- □ WITNESS POST
- OUTCROP
- FOLIATION AND DIP
- PILLOW LAVA - TOP INDETERMINATE
- PILLOW LAVA - TOP DIRECTION
- SOIL SAMPLE LOCATION - Gold values in ppb. Sample numbers preceded by J-89-G-
- la — MAFIC VOLCANIC FLOWS - Massive, medium to fine grained. Unaltered basalt flows locally with pillow lava.

0 100 200 METRES

REVISIONS	
BY	DATE

Westmin Resources Limited
EASTERN MINING EXPLORATION

JUTTEN TWP. PROJECT
HACKETT LAKE GRID

GEOLOGY MAP
2.12829

Work by C.R.	Scale 1:2000
Date JULY 1989	NTS 52-J-7