



31L11SE2002 2.19981 BUTLER

010

SUMMARY REPORT
FOR
W. C. SYMONDS
ON
STRIPPING AND TRENCHING
VERMICULITE
AT
BUTLER TOWNSHIP
SUDBURY MINING DIVISION
ONTARIO

2.19981

DECEMBER 1, 1999
LIVELY, ON

EDWARD J. BLANCHARD

PURPOSE AND SCOPE

TO TRY AND LOCATE ADDITIONAL VERMICULITE ZONES IN THE NORTH WEST CORNER OF THE PROPERTY.

GEOLOGICALLY IT HAS BEEN NOTED THAT A MASSIVE AMPHIBOLITE STRUCTURE WITH INTENSE FOLDING STRIKES NORTH EAST DIPS EAST IN THE NORTH WEST CORNER OF CLAIM NUMBER 1230702. VERMICULITE OCCURS ALONG THE CONTACT OF THE AMPHIBOLITE ZONES.

EXPLORATION

AN AREA OVER 300 FEET LONG WAS STRIPPED DOWN TO BED ROCK. OCCASIONALLY OVERBURDEN WAS DEEP. A CONTINUOUS ZONE OF VERMICULITE WAS ENCOUNTERED FOR 300 FEET.

IN ALL THE VERMICULITE FOLLOWED IN CONTACT WITH THE AMPHIBOLITE. THIS OBSERVATION IS USEFUL FOR FUTURE EXPLORATION.

VERMICULITE

THE DEPOSIT HAS EXPERIENCED A LOT OF WEATHERING IN THE TOP 10 FEET, HENCE WITH GROUND WATER WASHING HAS CONCENTRATED ITSELF TO AN ESTIMATED GRADE OF 60 % - 80% VERMICULITE.

TRENCHES WERE DUG INTO THE ZONE UNTIL IT BECAME SOLID AT A DEPTH OF 10 FEET TO 12 FEET.

SAMPLES WERE TAKEN AT 30 FOOT INTERVALS FROM THE CONSOLIDATED ROCK.

THESE SAMPLES WERE TAKEN TO SUDBURY TO THE ERANA MINES PILOT PLANT FOR THE FOLLOWING WORK:

- 1 SEPARATION OF VERMICULITE DEPOSIT FROM GANGUE MATERIALS UTILIZING NEW PROCESS TECHNOLOGY
- 2 TO DETERMINE GRADE OF VERMICULITE
- 3 TO PREPARE VERMICULITE FOR EXFOLIATION
- 4 TO HAVE PRODUCT FOR FINAL ANALYSIS AND MARKET RESEARCH

FUTURE RECOMMENDATIONS

BASED UPON THE RESULTS OF THE ERANA MINES PILOT PLANT WORK AND PRODUCT EVALUATION BY ERANA MINES AND THE INDUSTRY AT LARGE, AS WELL AS THE RECENT INQUIRY BY A PROSPECTIVE CUSTOMER FOR USE IN FIRE PROOF BOARDS, WE RECOMMEND THE FOLLOWING:

- A MINE AND PROCESS A 10 TON BULK SAMPLE FOR CUSTOMER EVALUATION
- B ALTHOUGH EXTENSIVE TRENCHING HAS BEEN DONE AT LEAST 2,000 FEET OF DIAMOND DRILLING IS NECESSARY TO ESTABLISH DEPTH OF OCCURRENCE

AND EXTENT OF VERMICULIZATION AT DEPTH

C MAPPING OF ALL OCCURENCES ON THE PROPERTY

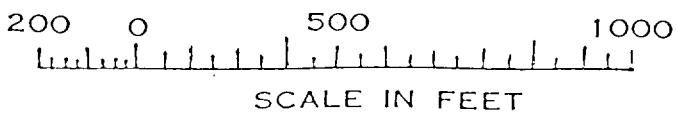
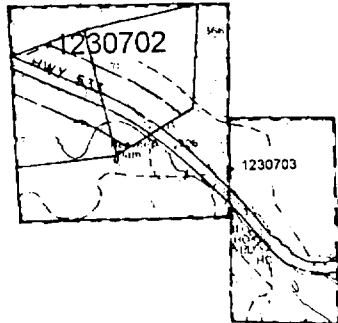
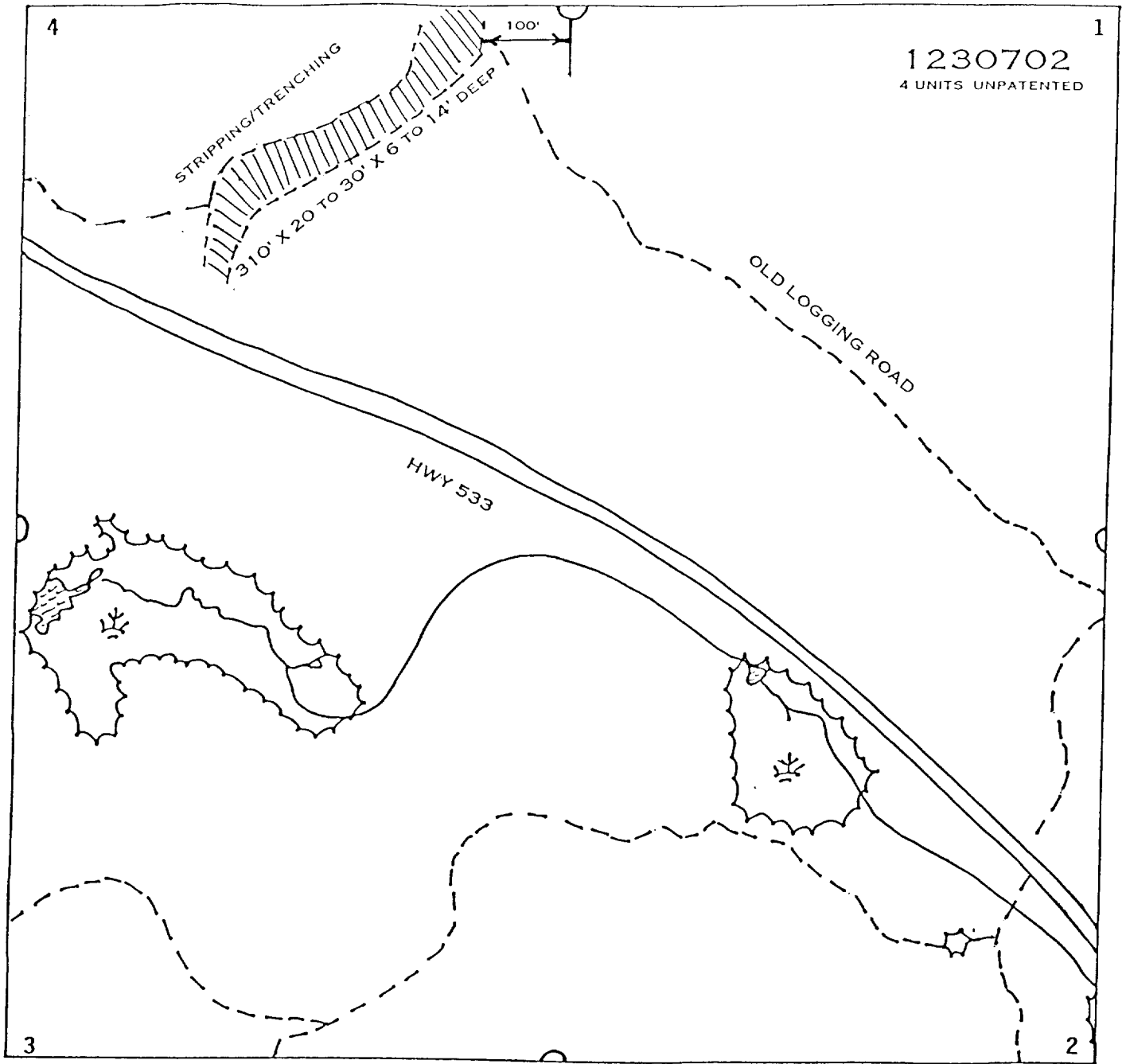
D MAP ALL AMPHIBOLITE EXPOSURES

RESPECTFULLY SUBMITTED



EDWARD J. BLANCHARD
DECEMBER 1, 1999.

consultant



1:4800

BUTLER TOWNSHIP
SUBBURY MINING DIVISION

LOCATION MAP -
CONTINUOUS STRIPPING AND
OVERBURDEN REMOVAL

DATE: DEC-01-99 EJB



RE: Work Report Assessment Results
Submission Number:2.199881

AMENDMENT

ERANA MINES - PILOT PLANT TEST

In January 2000, 8 bulk samples of 100 lbs. each were processed with the objectivity of both determining the grade of vermiculite and separation from gange rock. The samples were a composite of 30 foot intervals, crushed in a 12 blade hammer mill and screened to a -8 mesh for processing.

The first method used was a patented air separation unit. This unit separates dry material by specific gravity. The second method used was a wet Diester Table.

All material from the wet table was dried. All the vermiculite concentrate was exfoliated.

CONCLUSION

The wet Diester Table provided a vermiculite concentrate that when exfoliated, yielded a 100% product.

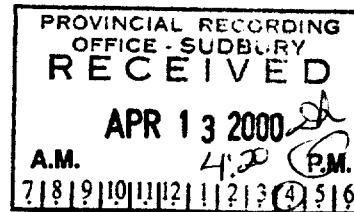
The air separation unit provided a vermiculite concentrate that when exfoliated, yielded 85% vermiculite and still had 15% amphibolite in the concentrate. All determinations were by weighted average.

The nature of the rock was originally called amphibolite. However after ICP analysis, we are not sure - possibly a large highly folded carbonatite.

The vermiculite occures as veins and veinlets ranging from 4 feet wide to 12 feet wide. The vermiculite is always on the foot wall side of the folded, previously called amphibolite.

A ICP analysis of the so-called amphibolite is attached.

Edward J. Blanchard
April 11, 2000.



ERANA MINES LIMITED
106 Fielding Road
Lively, Ontario
P3Y 1L5

DIESTER TABLE

TEST	CONCENTRATE RECOVERED	EXFOLIATED	RECOVERED GRADE VERMICULITE
#1	75 lbs.	100%	75%
#2	85 lbs.	100%	85%
#3	74 lbs.	100%	74%
#4	95 lbs.	100%	95%

AIR SEPARATOR

TEST	CONCENTRATE RECOVERED	EXFOLIATED	RECOVERED GRADE VERMICULITE
#1	85 lbs.	80%	68%
#2	90 lbs.	80%	72%
#3	70 lbs.	80%	56%
#4	95 lbs.	80%	76%

ERANA MINES LTD

Attention: E. Blanchard

Project:

Sample: Fine Material

Black Mineral

Swastika Laboratories Ltd.

1 Cameron Ave., Swastika, Ontario, P0K 1T0

Tel: (705) 642-3244 Fax: (705) 642-3300

Report No : 0W0293 RL

Date : Feb-09-00

ICP Whole Rock Assay

Lithium Metaborate Fusion

Sample Number	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	CaO %	MgO %	K ₂ O %	TiO ₂ %	K ₂ O %	MnO %	P ₂ O ₅ %	LOI %	Ba ppm	Sr ppm	Zr ppm	Sc ppm	Y ppm	Be ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	V ppm	Zn ppm	Rb %	Nb ppm	Total %
Black Mineral	49.27	8.86	10.18	12.05	15.52	1.24	0.37	0.63	0.27	0.10	0.90	50	460	30	40	20	5	50	1880	<5	295	150	<5	<0.01	10	99.62

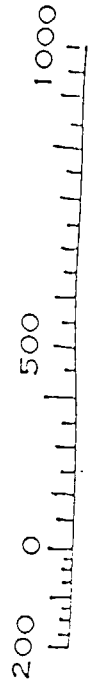
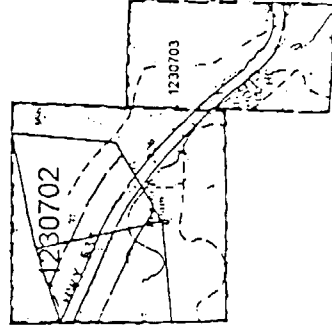
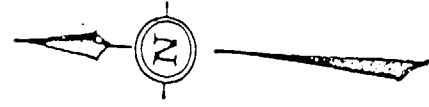
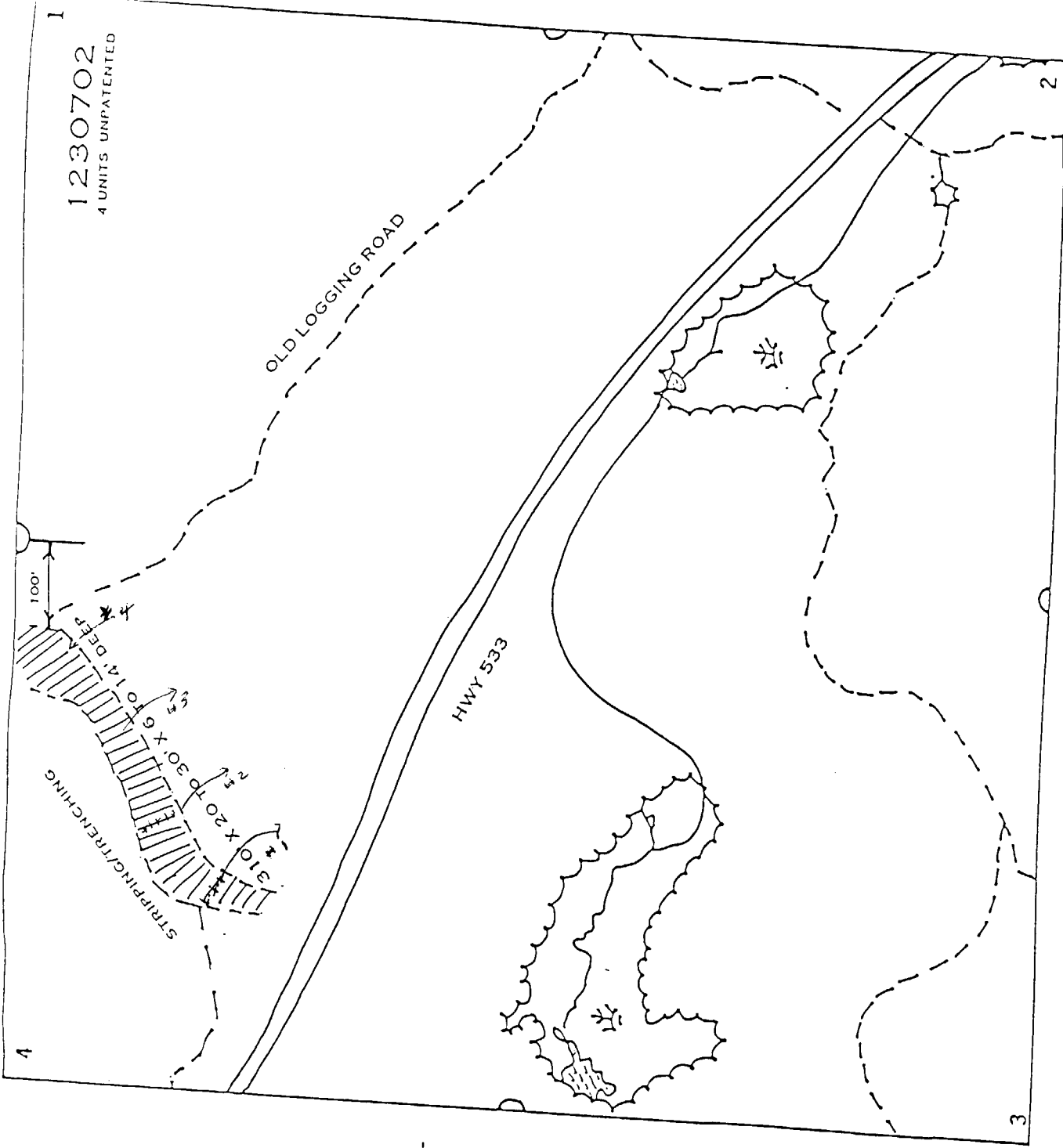
*Black material
Butler Amphibolite?*

FAXED

Sample is fused with Lithium Metaborate and dissolved in dilute HNO₃.

Signed: *E. Blanchard*





SCALE IN FEET

1:1800

BUTLER TOWNSHIP
SUDBURY MINING DIVISION

LOCATION MAP -
CONTINUOUS STRIPPING AND
OVERBURDEN REMOVAL

DATE: DEC-01-99 EJB



31L11SE2002 2.19981 BUTLER 900

f subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the review the assessment work and correspond with the mining land holder. Recorder, Ministry of Northern Development and Mines, 6th Floor.

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
 - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name Wilfred C. Symonds	Client Number 199539
Address 40 B Essa Road	Telephone Number (705)739-4764
Barrie, ON L4N 3K5	Fax Number (416)441-9443
Name	
Client Number	
Address	
Telephone Number	
Fax Number	

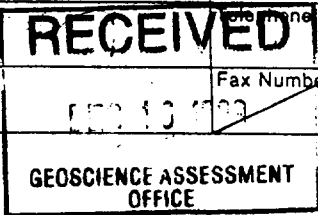
2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.
 Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
 Physical: drilling, stripping, trenching and associated assays
 Rehabilitation

Work Type STRIPPING/TRENCHING	Office Use
	Commodity
	Total \$ Value of Work Claimed 5478
Dates Work Performed From 24 11 99 To 1 12 99 <small>Day Month Year Day Month Year</small>	NTS Reference
Global Positioning System Data (if available)	Mining Division Sudbury
Township/Area Butler	Resident Geologist District Sudbury
M or G-Plan Number G-1722	

 Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
 - provide proper notice to surface rights holders before starting work;
 - complete and attach a Statement of Costs, form 0212;
 - provide a map showing contiguous mining lands that are linked for assigning work;
 - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name Erana Mines Limited	Telephone Number (705)682-0649
Address 106 Fielding Road, Lively, ON P3Y 1L5	Fax Number (705)682-2447
Name	
Telephone Number	
Address	
Fax Number	
Name	
Telephone Number	
Address	
Fax Number	


4. Certification by Recorded Holder or Agent

 I, Joanne A. Funk (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent <i>Joanne A. Funk</i> -Agent	Date Dec. 7/99
Agent's Address 106 Fielding Road, Lively, ON P3Y 1L5	Telephone Number (705)682-0649
	Fax Number (705)682-2447

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

eg	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	\$26, 825	N/A	\$24,000	\$2,825
eg	1234567	12	0	\$24,000	0	0
eg	1234568	2	\$ 8, 892	\$ 4,000	0	\$4,892
1	1230702	4	5,478.	3,200.	1,600.	678.
2	1230703	2	0	1,600.	0	0
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
Column Totals			5,478.	4,800.	1,600.	678.

I, Joanne A. Funk (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: Joanne A. Funk Date: Dec. 7/99

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
MECHANICAL STRIPPING/TRENCHING	3 days	1,387.43	4,162.30
Associated Costs (e.g. supplies, mobilization and demobilization).			
MOBILIZATION AND DEMOBILIZATION		374.50	1,123.50
Transportation Costs		64.20	192.60
Food and Lodging Costs			N/A
Total Value of Assessment Work			5,478.40

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

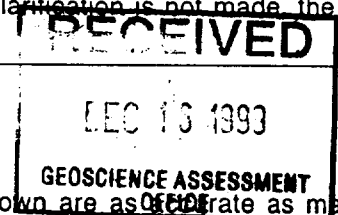
TOTAL VALUE OF ASSESSMENT WORK	× 0.50 =	Total \$ value of worked claimed.
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Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, Joanne A. Funk (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as agent I am authorized (recorded holder, agent, or state company position with signing authority) to make this certification.



Signature <i>Joanne A. Funk</i>	Date Dec. 7/99
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ERANA MINES LIMITED
106 Fielding Road
Lively, Ontario
P3Y 1L5

TEL: (705) 682-0649...FAX: (705) 682-2447

TO: Mr. W.C. Symonds
 40 B Essa Road
 Barrier, ON
 L4N 3K5

INVOICE NO.: WS-01/99
DATE : Dec-01-99
TERMS : Due upon receipt.

RE: "Butler Township" - stripping/trenching

Nov-24-99	MOBILIZATION: (see attached invoice) \$ 525.00*		
	Albert Transport - Nov. 24/99		
	Inv. No. 201 - \$36.75 GST		
	 FIELD CONSULTANT		
	E.J. Blanchard		
	1 day @ \$250./day		250.00**
	 LABOUR		
	Nov-24, 25 & 26-99		
	A. Jerome		
	36 hrs. @ \$20./hr.	720.00	
	P. Hauser (equip. operator)		
	36 hrs. @ \$20./hr.	720.00	1,440.00**
	 EQUIPMENT RENTAL (unoperated)		
	690E excavator		
	1 wk. @ \$2200./wk.		2,200.00**
	 SERVICE VEHICLE (unoperated)		
	1-97 GMC P/U @ \$60./day X 3 days		180.00**
Nov-27-99	DEMOBILIZATION: (see attached invoice)		
	Albert Transport - Nov. 27/99		
	Inv. No. 115 - \$36.75 GST		525.00*
			\$5,120.00
	7% GST #101671618 on *	73.50	
	on **	284.90	358.40
			\$5,478.40

COPY



20 Cedar Laine Road
Lively, Ontario P3Y 1H4
Tel: 705-682-4285 • Fax: 705-682-4744

Date Nov 24/99
Truck # 20-05
Driver # Jason

Invoice # Nº 201
C.O.D. Prepaid Collect
Load WT (EST) 24 ton

Customer Name Erana Mine
Address 106 Fielding Rd
Lively Ont. P3Y 1H4
Product Pick-up Point Kukagami LKhd

P.O. # _____
Contact Name _____ ph. 682-0649
Customer Signature X Peter Hausen
Delivery Point Hwy 533 & Hwy 63

Shipping Details Deliver Excavator 46 Km North of North Bay on Hwy 533.

Price 525.00
Surcharge 9
Sub Total 525.00
G.S.T. 36.75 ✓
Total \$561.75 ✓

Driver Signature [Signature]

TERMS NET 30 DAYS - PLEASE PAY BY INVOICE.
NO STATEMENT WILL BE ISSUED.
GST Registration # R101259778



20 Cedar Laine Road
Lively, Ontario P3Y 1H4
Tel: 705-682-4285 • Fax: 705-682-4744

Date Nov 27
Truck # 20-05
Driver # Dawid

Invoice # Nº 115
C.O.D. Prepaid Collect
Load WT (EST) _____

Customer Name ERANA MINE
Address 106 FIELDING RD
LIVELY CNT PUMBED
Product Pick-up Point Hwy 533 & Hwy 63

P.O. # _____
Contact Name ED BLANCHARD (682-0649)
Customer Signature _____
Delivery Point STOP ON FIELDING RD.

Shipping Details PICK UP JD EXCAVATOR 46 Km NORTH OF NORTH BAY & DELIVER TO STOP ON NELSON RD WARDEN

Price 525.00
Surcharge 0
Sub Total 525.00
G.S.T. 36.75 ✓
Total 561.75 ✓

Driver Signature [Signature]

TERMS NET 30 DAYS - PLEASE PAY BY INVOICE.
NO STATEMENT WILL BE ISSUED.
GST Registration # R101259778

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9845
Fax: (877) 670-1555

April 20, 2000

WILFRED C SYMONDS
40 B, ESSA RD.
BARRIE, ONTARIO
L4N-3K5

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.19981

Status

Subject: Transaction Number(s): W9970.00328 Approval After Notice

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in **DUPLICATE** to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact **BRUCE GATES** by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.19981

Date Correspondence Sent: April 20, 2000

Assessor: BRUCE GATES

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9970.00328	1230702	BUTLER	Approval After Notice	April 17, 2000

Section:

10 Physical PSTRIIP
18 Other INDUS

The revisions outlined in the Notice dated March 14, 2000 have for the most part been corrected. Accordingly, assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission.

Correspondence to:

Resident Geologist
Sudbury, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Joanne Funk
LIVELY, ONTARIO

WILFRED C SYMONDS
BARRIE, ONTARIO

MAP SYMBOLOGY

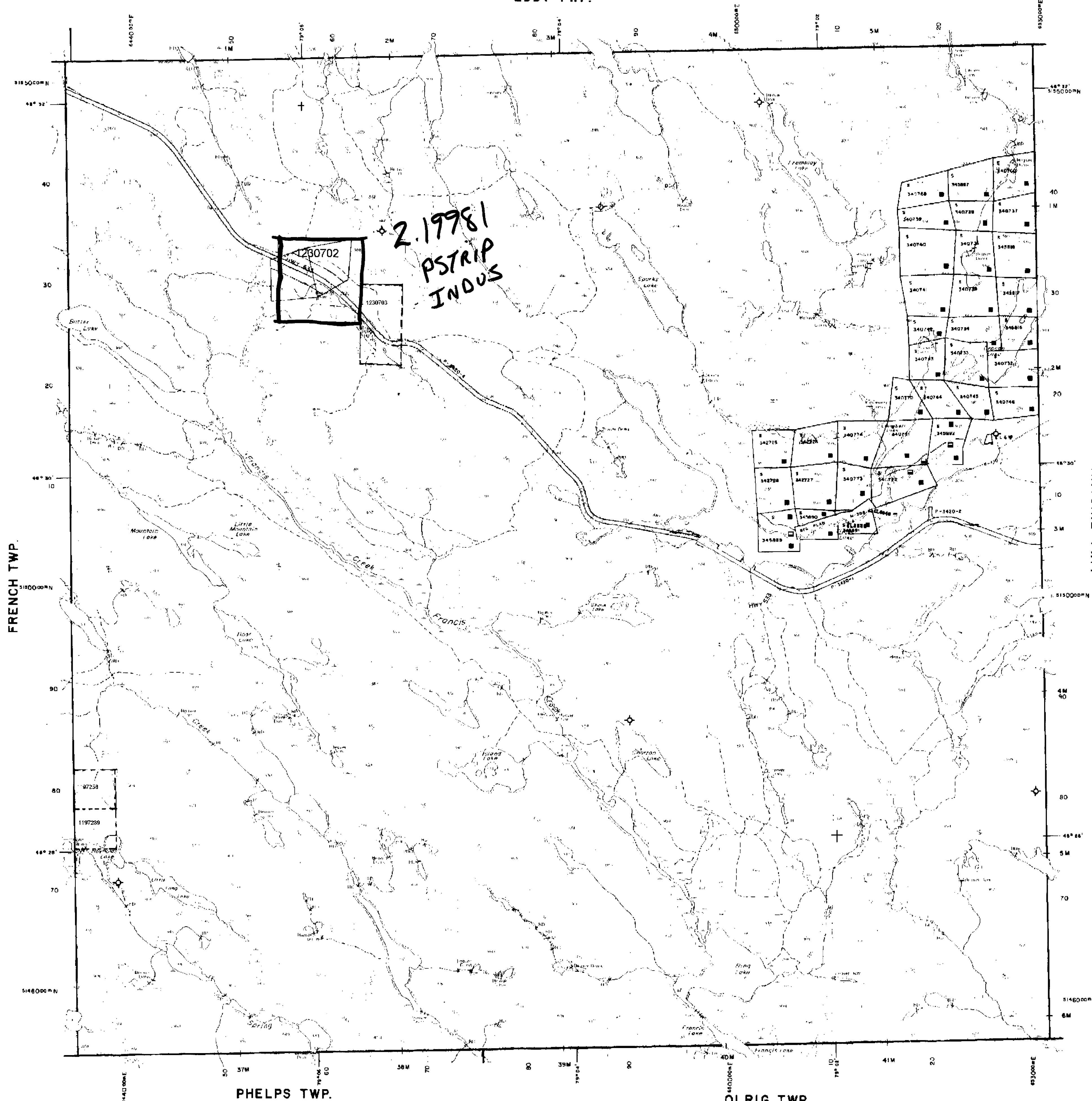
Aerial Cableway	Pipeline (above ground)
Boundary	Railroad
International	Single Track
State/Provincial	Double Track
Disturbance	Abandoned
Depression	Footpath
Lot, Contention	Road
Abandoned	Highway, County
Peak Boundary	Traverse
Bridge	Access Road of Slighter Maintenance or Non-ROAD (dashed)
Road, Built-up	Trail, Open Road (orange line)
Building	Rapids
Chimney	Double line river with multiple rapids
Chiff, Pill, Pole	Double line river with multiple rapids
Contours	Reservoir
Interpretation	River, Stream, Canal
Depressions	Approximate
Control Points	Station
Horizontal	Distance of Peak
Vertical	Pack
Culvert	Trail
Falls	Spot Elevation (from observation) 1000
Double line river	Tower
Fence, Hedge, Wall	Transmission Line
Feature Outline (contour lines, etc.)	Pitons
Flooded Land	Tunnel
Lock	Utility Poles
Marsh or Swamp	Wharf, Dock, Pier
Mine Head Frame	Wooded Area
Outcrop	

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

EDDY TWP.



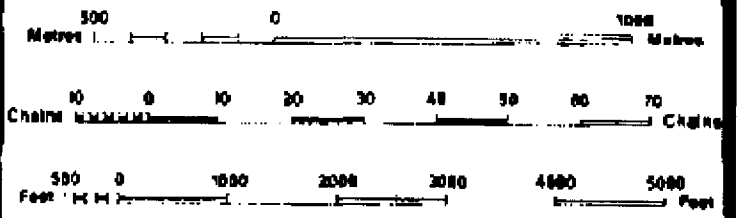
LEGEND

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 MUSKES	
MINES	
TRANSVERSE 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	◕
RESERVATION	◖
CANCELLED	◗
SAND & GRAVEL	◘
LAND USE PERMITS FOR COMMERCIAL TOURISM OUTPOST CAMPS	◙

NOTE: MINING RIGHTS IN PARCELS PAID FOR PRIOR TO MAY 3, 1913, SURVEYED IN ORIGINAL PATENT BY THE PUBLIC LANDS ACT, R.S.O. 1913, C-20, SEC. 6 & SUBSEC. 4



SCALE 1:20 000

DATE OF ISSUE

DEC 16 1999

PROVINCIAL RECORDING OFFICE - SUDBURY

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

TOWNSHIP
BUTLER
M. N. R. ADMINISTRATIVE DISTRICT
NORTH BAY
MINING DIVISION
SUDBURY
LAND TITLES / REGISTRY DIVISION
NIPISSING

Ministry of Natural Resources Ontario
Land Management Branch

Date: NOVEMBER, 1984
Number: **G-1722**



31L11582002 2.19981 BUTLER 200