



32D04SW0102 2.13993 SKEAD

010

GEOLOGICAL & VLF-EM SURVEYS

SKEAD & CATHARINE TOWNSHIPS, ONTARIO

By

R.A. MacGregor, P. Eng.

Qual 2.1102

February 14, 1991

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MAR 14 1991

MINING LANDS SECTION

INTRODUCTION

Geological and VLF-EM surveys were carried out over traverse lines in Skead and Catharine Townships.

LOCATION, ACCESS AND OWNERSHIP

The property consists of a block of 10 claims in the north-west corner of Skead Township and the northeast corner of Catherine Township, Ontario. The claims are numbered L1049902 to 1049911 inclusive and are recorded in the name of Skead Holdings Ltd., c/o P.O. Box 1110, Sault Ste. Marie, Ontario.

The claims are crossed by old logging roads passable to trucks which lead from Highway 624, a paved secondary highway, about 8 miles south of Larder Lake, Ontario .

PREVIOUS EXPLORATION

Past work has consisted largely of geophysical surveys and some trenching. There is little information available on this work.

TOPOGRAPHY

Most of the claims are underlain by sand plains and eskers with a few pot hole swamps. It is largely flat with gravel ridges and a few outcrops through the sand.

SURVEY PROCEDURE

The boundary between Skead and Catharine townships was used as a baseline from which lines were run by pace and compass east and west at approximately 400-foot intervals for the magnetometer survey. The boundary between Catharine and McElroy Townships was also used as a base line and lines run north and south at 400-foot intervals for the VLF-EM survey.

Survey Procedure (continued)

A VLF-EM survey was run with a Crone Radem instrument set to the signal from Annapolis, Maryland (21.4 KHz). Readings were taken at 100-foot intervals along all the lines, using the procedure outlined in Appendix 1. The looping method was used for control of variation.

Lines were run by pace and compass from the township line used as a baseline. Rock outcrop and rock types were noted and plotted on the geological plan. Some samples were taken for future analysis.

GEOLOGY

The claims are underlain by ultramafic to mafic volcanic and intrusive rocks. Mafic rocks are gabbros. The ultramafic rocks are serpentized peridotites. All the rocks appear to trend north west. With the sparse outcrop it is difficult to determine if the rocks are volcanic flows or a series of differentiated sills. The claims lie on the east margin of the Munro esker and are covered by extensive sand and gravel deposits.

DISCUSSION OF RESULTS

Geology

The claims are underlain by mafic to ultramafic volcanics or differentiated sills. Overburden is extensive. Samples should be checked for platinum-palladium.

VLF-EM

There are a number of cross-overs which may represent serpentization or topography. Some checking by other geophysical methods is warranted for the possibility of sulphides.

Respectfully submitted



R.A. MacGregor, P. Eng.

February 14, 1991

C E R T I F I C A T E

I, Robert A. MacGregor certify:

1. I am a Mining Engineer residing at 28 Ford Street, Sault Ste. Marie, Ontario. I have worked as a mining engineer and geologist for the past 20 years.
2. I am a member of the Association of Professional Engineers of the Province of Ontario and a member of the Canadian Institute of Mining and Metallurgy.
3. I attended Queen's University for two years in the Mining-Geology course.
4. I personally have knowledge of the field work covered by this report.

Feb 14/91
Date


R.A. MacGregor



Ministry of Northern Development and Mines

ML.

DOCUMENT
9108. 0003



32D045W0102 2.13993 SKEAD

900

Mining Act

Report of Work

(Geophysical, Geological and Geochemical Surveys) - Mining Lands Section, Mineral Development and Lands Branch:

Type of Survey(s) **EM and Geology** Mining Division **Larder Lake** Township or Area **Skead & Catharine**
 Recorded Holder(s) **Skead Holdings Ltd.** 2.13993 Prospector's Licence No.
 Address **40 Box 1110 Sault Ste Marie Ont** Telephone No.
 Survey Company **Colex Exploration Inc**
 Name and Address of Author (of Geo-Technical Report) **RA MacGregor 28 Ford St Sault Ste Marie Ont** Date of Survey (from & to) **26 90 30 10 90**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days (This includes line cutting)	Electromagnetic	20
For each additional survey using the same grid: Enter 20 days (for each)	Magnetometer	20
	Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
	Other	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys	Electromagnetic	Days per Claim
	Magnetometer	
	Other	
Total miles flown over claim(s)		
Date Jan 25/91	Recorded Holder or Agent (Signature) <i>[Signature]</i>	

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L	1049902				
	1049903				
	1049904				
	1049905				
	1049906				
	1049907				
	1049908				
	1049909				
	1049910				
	1049911				

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MINING LANDS SECTION

Total number of mining claims covered by this report of work. 10

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 **RA MacGregor 28 Ford St. Sault Ste Marie Ont**
 Telephone No **949-5928** Date **Jan 25/91** Certified By (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Recorded 400	Date Recorded Jan 29/91	Mining Recorder [Signature]
Date Approved as Recorded Apr. 130/91	Project Manager, Mining Lands [Signature]	

Received Stamp

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LARDER LAKE
MINING DIVISION

JAN 29 1991

TIME **10:46 am**



File _____

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) GEOLOGICAL & VLF-EM
Township or Area Skead & Catherine Townships
Claim Holder(s) Skead Holdings Ltd.

Survey Company Colex Exploration Inc.
Author of Report R.A. MacGregor,
Address of Author P.O. Box 1110, Sault Ste. Marie, Ont.
Covering Dates of Survey 02/06/90 to 14/02/91
(linecutting to office)
Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

L1049902

1049903 (prefix) (number)

1049904

1049905

1049906

1049907

1049908

1049909

1049910

1049911

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical --Electromagnetic <u>20</u>
ENTER 20 days for each additional survey using same grid.	--Magnetometer _____
	--Radiometric _____
	--Other _____
	Geological <u>20</u>
	Geochemical _____

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

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

DATE: Feb. 14/91 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications R.1102

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 10

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 449 Number of Readings 449
Station interval 100 feet Line spacing 400 feet
Profile scale 1" = 40'
Contour interval _____

MAGNETIC

Instrument _____
Accuracy -- Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

ELECTROMAGNETIC

Instrument Crona Radem
Coil configuration N/A
Coil separation N/A
Accuracy ± 1/2°
Method: Fixed transmitter Shoot back In line Parallel line
Frequency Annapolis, Maryland (21.4 KHz)
(specify V.L.F. station)
Parameters measured Dip angle of the resultant field

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 _____

R. A. MACGREGOR, P.ENG.
MINING ENGINEER

28 FORD STREET
SAULT STE. MARIE, ONTARIO
P6A 4N4

P.O. BOX 1110
SAULT STE. MARIE
ONTARIO P6A 5N7

OFFICE:
705-949-5828
HOME:
705-949-4250
FAX:
705-949-2427

Date: March 13/91

MINISTRY OF NORTHERN DEVELOPMENT
AND MINES
MINING LANDS SECTION
MINERAL DEVELOPMENT AND LANDS BRANCH
159 Cedar Street
SUDBURY, Ontario P3E 6A5

Dear Sir or Madam:

Enclosed please find report (s) on E.M. & Geology, Mead
and Catharine Twp./Mead Holdings Ltd. (Feb 14, 1991);
Magnetometer & VLF-EM, Churchill Township/Mead Holdings
Ltd. (Feb. 15, 1991)

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Yours truly MINING LANDS SECTION

Per: Robert A. MacGregor
Robert A. MacGregor, P. Eng.

RAM/jh

Encl.

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

SAND AND GRAVEL ON MTC PLY NOJ230

DATE OF ISSUE
MAR 27 1991
LARDER LAKE MINING RECORDER'S OFFICE

2.13993

F 165 APPLICATION UNDER PUBLIC LANDS ACT

AREAS WITHDRAWN FROM STAKING

Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-63-85

Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-8-86

Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-7-86

PART OF R3 REOPENED BY ORDER 0-19/88 NOV 30/88
PART OF R3 REOPENED BY ORDER NO. 0-110/89 NR
PART OF R3 REOPENED BY ORDER 0-111-90NER A

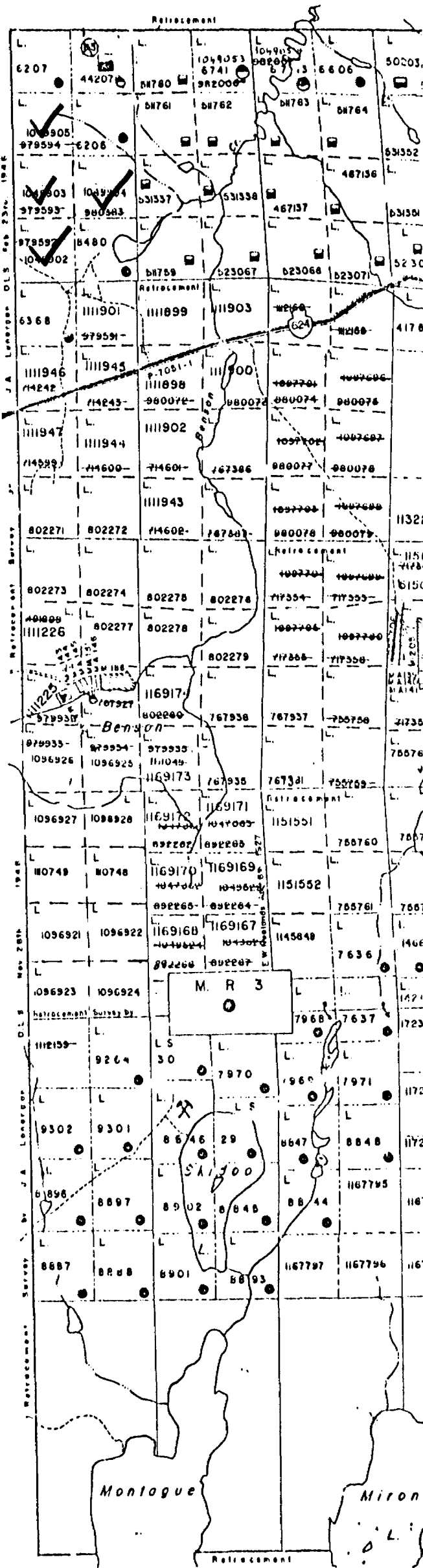
Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-8-86
PART OF R4 REOPENED BY ORDER 0-19/88L NOV 30/88
PART OF R4 REOPENED BY ORDER 0-20/88L NOV 30/88

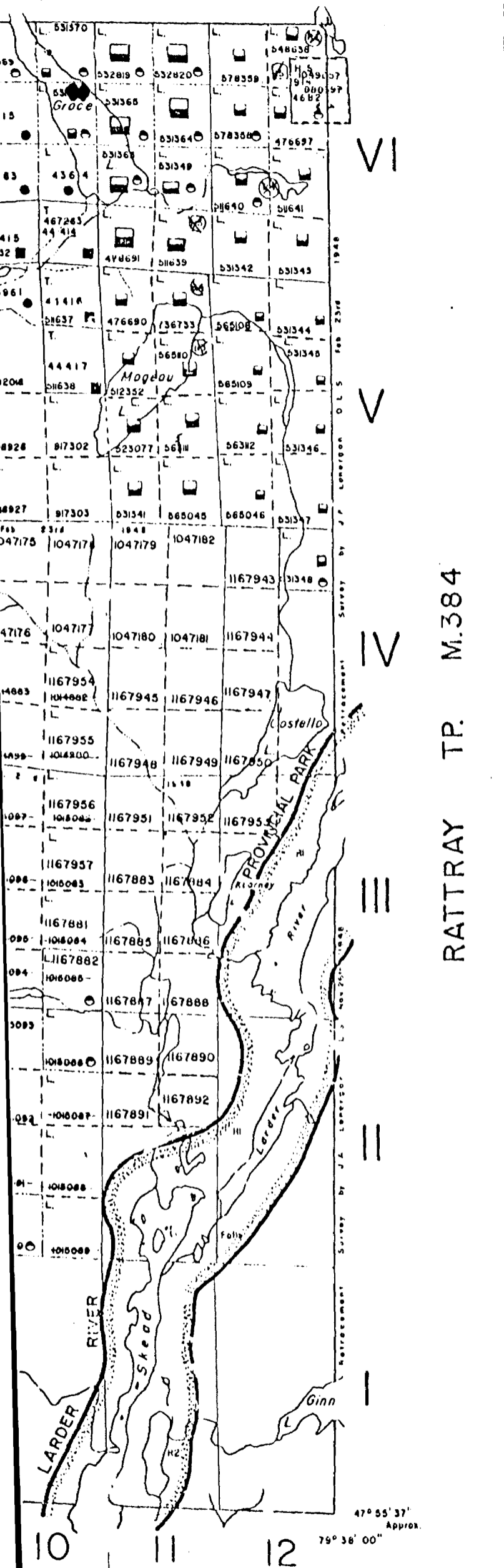
Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-9-86
Part of R5 re-opened 034/86, 033/86, 012/87
PART OF R5 REOPENED BY 27 88 NR MAR 30/88

Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-72-87
PART OF R6 REOPENED BY 0-17/88L NOV 30/88

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT

CATHARINE TP. M.336





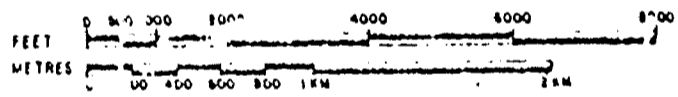
RATTRAY TP. M.384

- 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 -----
- ORIGINAL SHORELINE -----
- MARSH OR MUSKEG -----
- MINES -----

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	▼
CROWN LAND SALE	CC
ORDER-IN-COUNCIL	UC
RESERVATION	⊙
CANCELLED	⊖
SAND & GRAVEL	⊕

SCALE: 1 INCH = 40 CHAINS



ACRES	HECTARES
40	16

TOWNSHIP

SKEAD

DISTRICT

TIMISKAMING

MINING DIVISION

LARDER LAKE



Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date 10/4/74

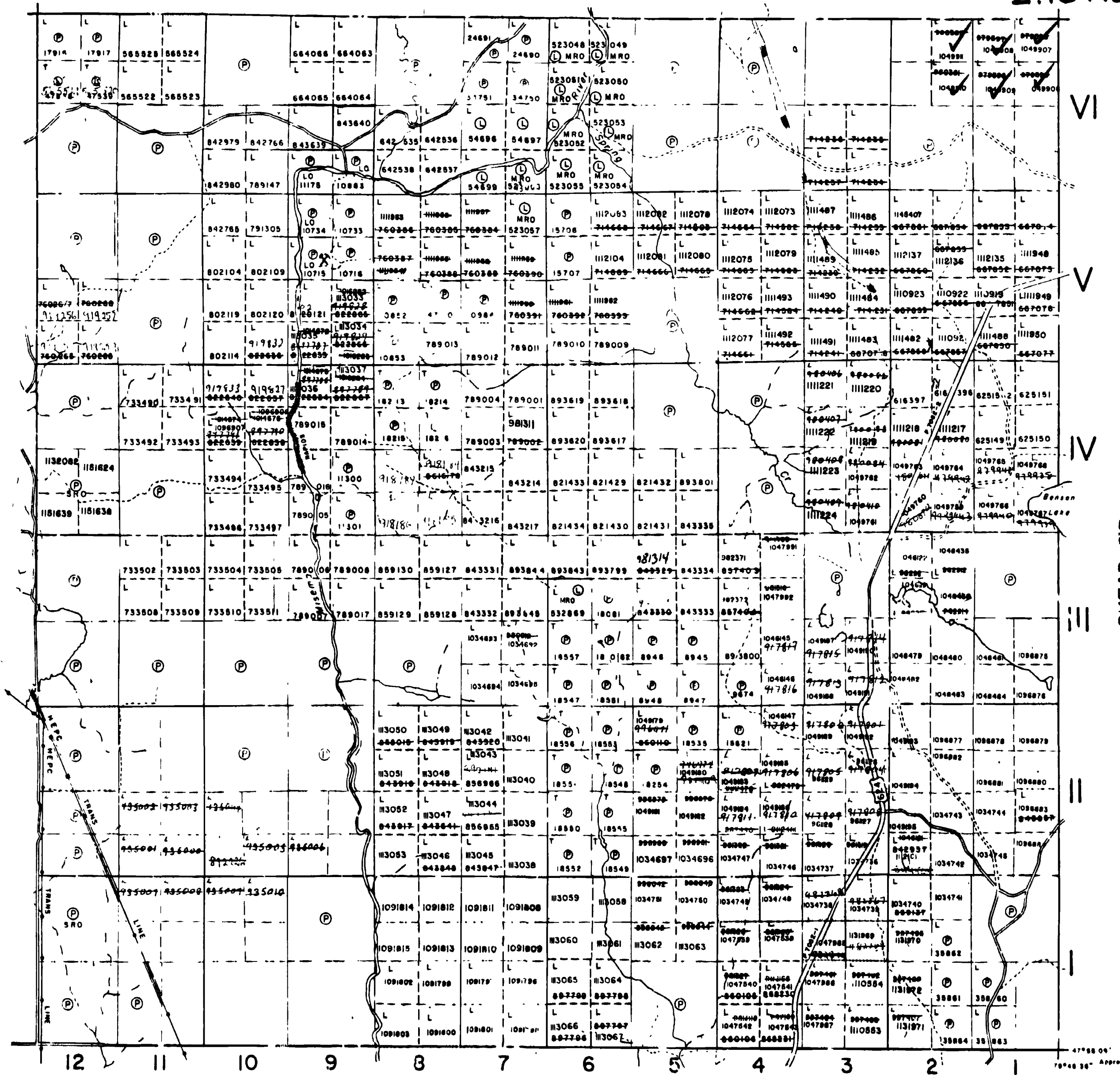
Plan No.

M 307

Whitney Block

PACAUD TP

SKEAD TP



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

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE
TIMISKAMING MANAGEMENT UNIT
AND MAY BE SUBJECT TO FORESTRY OPERATIONS.
THE MNR UNIT FORESTER FOR THIS AREA CAN BE
CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
POK ITO
705-642-3222

LEGEND

- PATENTED LAND
- PATENTED FOR SURFACE RIGHTS ONLY
- LICENSE OF OCCUPANCY
- CROWN LAND SALES
- LOCATED LAND
- CANCELLED
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- HIGHWAY & ROUTE NETWORK
- ROADS
- TRAILS
- RAILWAYS
- POWER LINES
- MARS; OR MUSKEG
- MINES

TOWNSHIP OF

CATHARINE

DISTRICT OF
TIMISKAMING

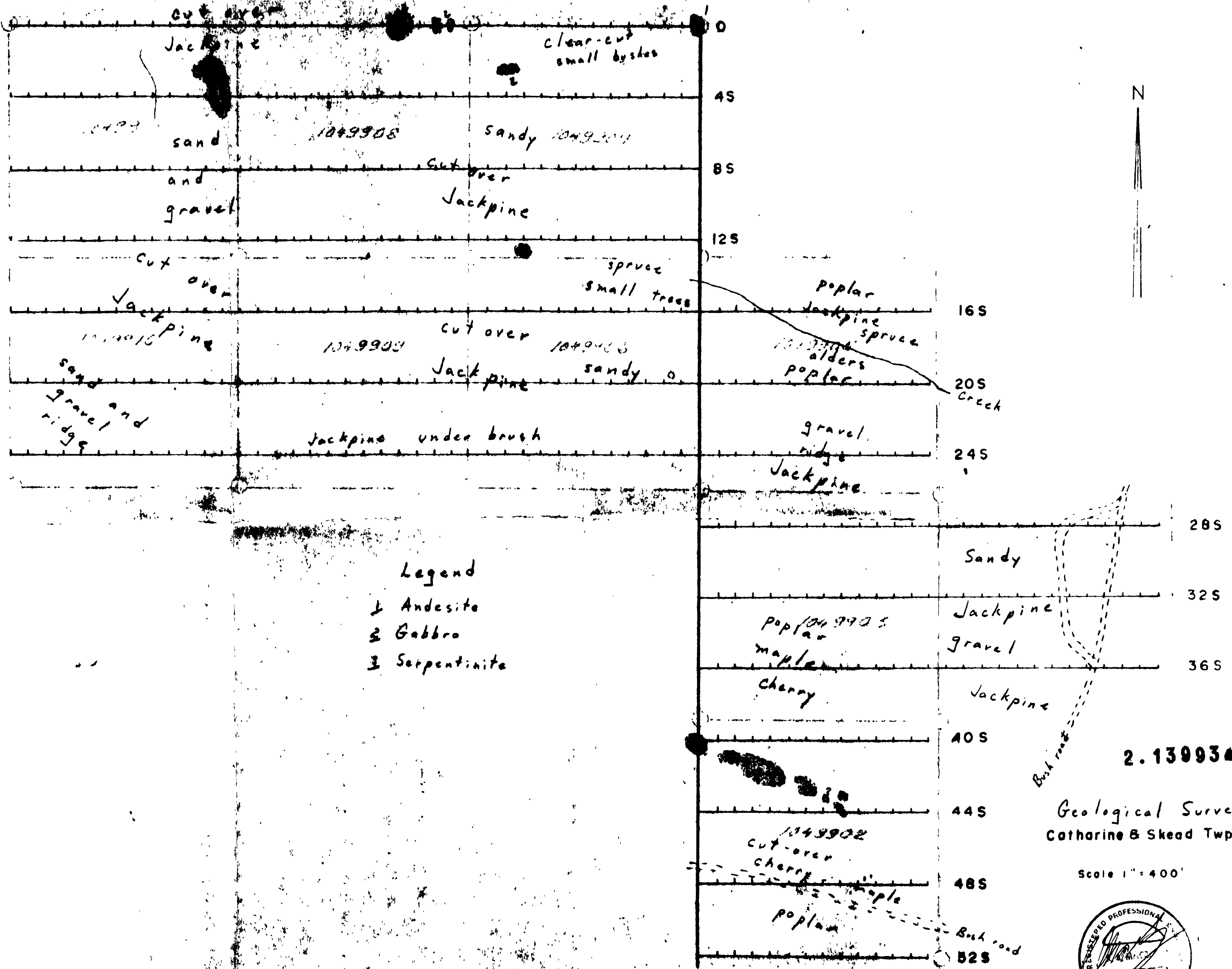
LARDER LAKE
MINING DIVISION

SCALE: 1 INCH = 40 CHAINS (1/2 MILE)

DATE JULY 1993 PLAN NO. G-3615

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.





- Legend
- 1 Andesite
 - 2 Gabbro
 - 3 Serpentinite

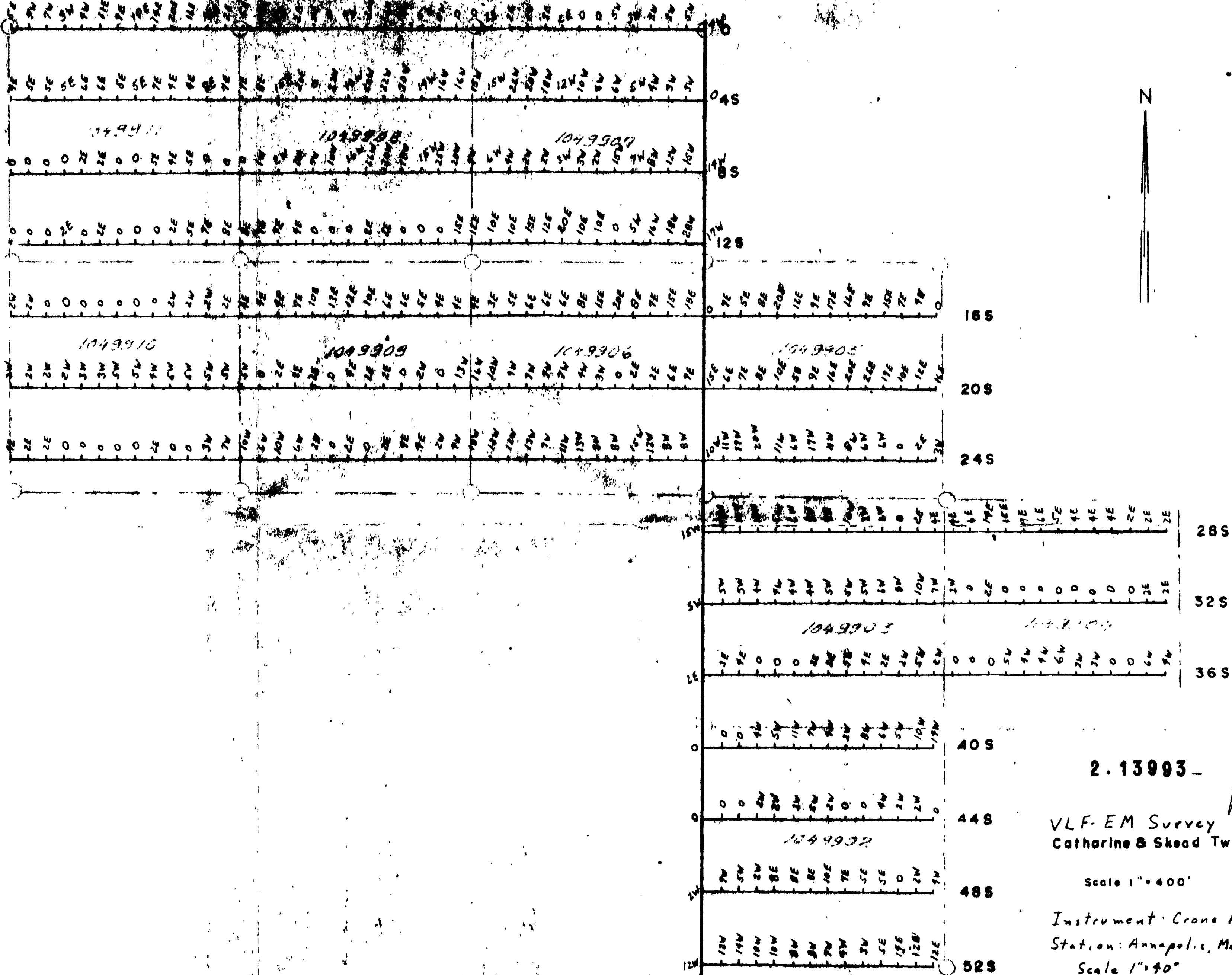


2.13993#

Geological Survey
Catharine & Skead Twp.

Scale 1" = 400'





2.13993-

VLF-EM Survey
Catharine & Skead Twp.

Scale 1" = 400'

Instrument: Crone Radem
Station: Annapolis, Maryland
Scale 1" = 40'



320045W0102 2 13993 SKEAD