

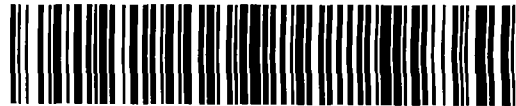


31M13NW0045 2.13066 CATHARINE

010

ASSESSMENT REPORT
ROCK SAMPLE ASSAY REPORT
MINING CLAIM L 893843
LOT 6, CONCESSION III
CATHARINE TOWNSHIP
DISTRICT OF TIMISKAMING

S. A. Gamble
January 20, 1990



31M13NW0045 2.13066 CATHARINE

010C

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INTRODUCTION

This report contains the results of analysis of rock samples taken from Mining Claim L 893843, Catharine Township, District of Timiskaming, in the fall of 1989. Sampling was carried out by B. G. Cook and S. A. Gamble.

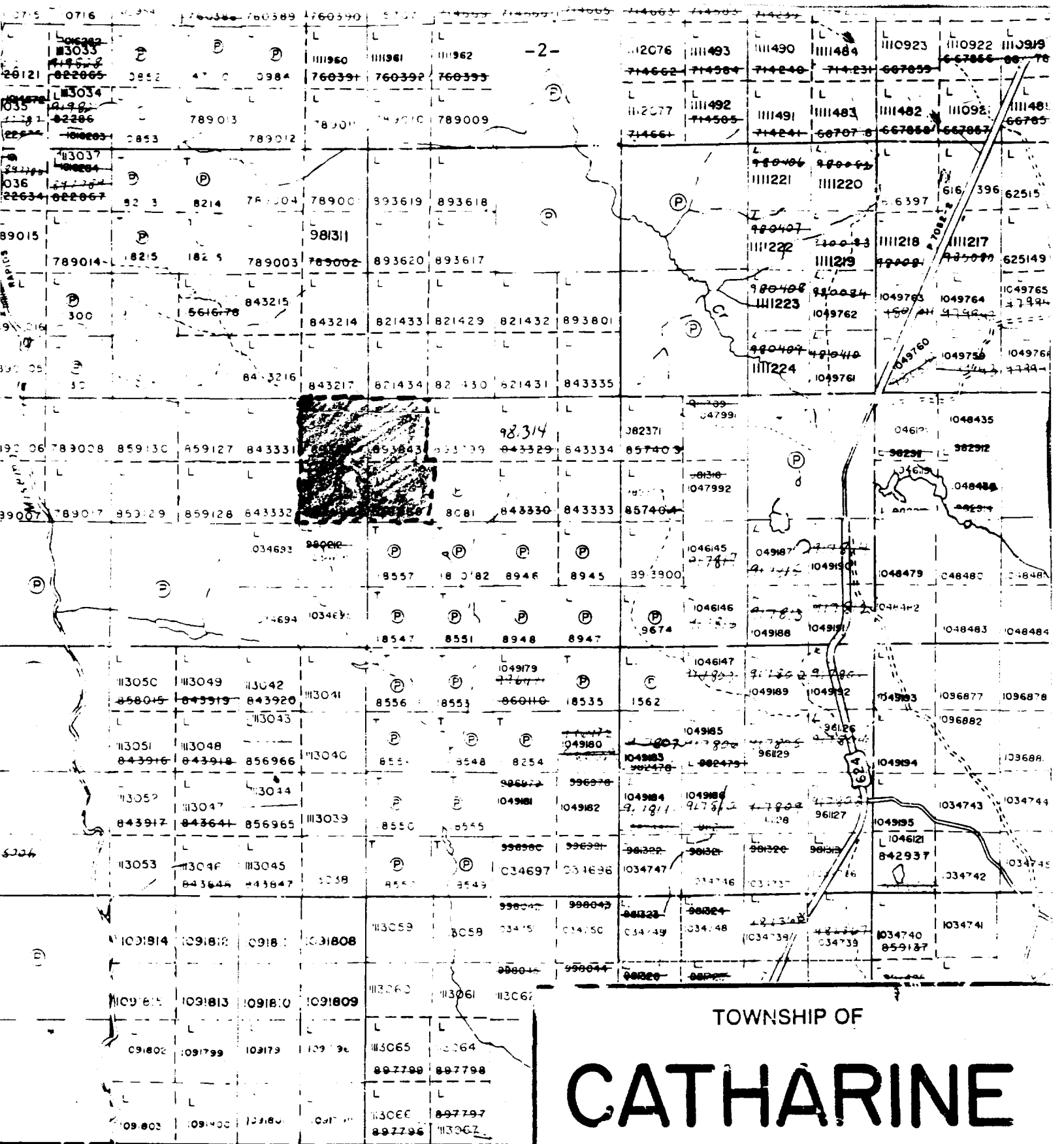
LOCATION AND ACCESS

Mining claim L 893843 is situate in the Township of Catharine and consists of the NW $\frac{1}{4}$ of the N $\frac{1}{2}$ of Lot 6, Concession III. (See location map)

The property is reached by travelling north from Englehart, on Highway 624 approximately 14 miles to where a well used bush road leaves Highway 624 towards the northwest. This road can be followed by truck for approximately 3 miles to where an overgrown logging road leads south. This overgrown logging road leads to the former bush trail to the property approximately $\frac{3}{4}$ miles south. The property is becoming more easily accessible because of increased mining exploration in the area .

HISTORY

A number of individuals and companies have held the property since 1916. It had been part of a group of claims adjacent to the " shaft " claim of Ostrom Gold Mines and Canora Gold Copper Mines Ltd. (also Primary Gold Mines Ltd.) In the early 1970's it was held by Moncrieff Uranium Mines Ltd as part of the J.M. French claims.



LOCATION MAP.
MARTER TP.

TOWNSHIP OF
CATHARINE
DISTRICT OF
TIMISKAMING
LARDER LAKE
MINING DIVISION
SCALE 1 INCH = 40 CHAINS (1/2 MILE)

In the early 1980's it was part of group optioned to Kennco Exploration Ltd. Presently it is held by B. G. Cook and S. A. Gamble.

TOPOGRAPHY AND VEGETATION

The topography of Mining Claim L 893843 is generally rock outcrop with local relief varying within 6 meters. Low wet areas occur between outcrops. The western boundary runs through a large beaver pond from the number 3 post for approximately 320 feet to where rocky ground is again encountered.

Vegetation consists of mixed evergreen and deciduous bush typical of Northern Ontario second growth. Alders occur in the low areas and on the overgrown roads.

ROCK SAMPLING AND ANALYSIS

A total of 35 samples were collected from exposed quartz veins and altered wall rocks. Six sites for sample collection were established. (See plan that accompanies this report and Appendix A. for sample and site numbers.) Channel sampling was carried out across localized quartz veins and altered wall rocks. Sample widths varied from 6 inches to 8 feet. No visible gold was seen in any sample.

The samples were submitted to Swastika Laboratories for gold analysis with the results obtained in PPB's. The results varied from Nil to 3360/3220 PPB gold. (See Certificate of Analysis accompanying this report)

RECOMMENDATIONS

It is recommended that power stripping in the sample areas be carried out to further delineate the extent of the quartz veins and alteration. Detailed sampling should then be done in the vicinity of the anomalous values to confirm preliminary results and to determine the existence of possible anomalous zones.

It is also recommended that all other exposed quartz veins and altered wall rocks on Mining Claim L 893843 be mapped and sampled.



Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Certificate of Analysis

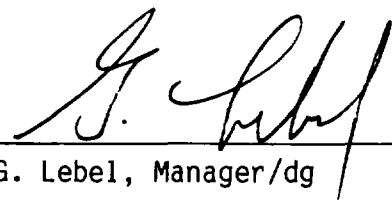
Certificate No. 77009

Date Dec. 4, 1989

Received Nov. 29, 1989 35 rock samples

Submitted by S.A. Gamble (Snowshoe A&T), Kirkland Lake, Ontario

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
7001	10	7022	20
7002	80	7023	40
7003	30	7024	Nil
7004	40/30	7025	190
7005	40	7026	30
7006	20	7027	3360/3220
7007	Nil	second pulp	3020/3150
7008	90	7028	120
7009	Nil	7029	40
7010	40	7030	50
7011	330/320	7031	10
7012	20	7032	10
7013	20	7033	70
7014	150	7034	190
7015	120	7035	210/180
7016	130		
7017	230		
7018	30		
7019	50		
7020	Nil		
7021	20		

Per 
G. Lebel, Manager/dg



P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

21257



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244 FAX (705) 642-3300

JOUR DATE ANNEE
MOIS
5 Dec 1989
DAY MONTH YEAR

TRANSPORTEUR
SHIPPED VIA

VENDU A
SOLD TO

S.A. Gamble (Snowshoe A&T)
70 First St.
Kirkland Lake, Ontario
P2N 1N3

1.5% LATE CHARGE OVER 30
DAYS (ANNUAL RATE 18%)

NO. D'EXEMPT. DE TAXE FÉD.	NO. D'EXEMPT. DE TAXE PROV.	VOTRE NO. DE COMMANDE	NOTRE NO DE COMMANDE	CONDITIONS	REP. DES VENTES
FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	NET 30 DAYS	SALES REP.
QUANTITE QUANTITY	DESCRIPTION			TERMS PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT
35 35	Au assays Sample handling Cert.#77009 Dec. 4, 1989			\$ 8.75 3.00	\$ 306.25 105.00
				SWASTIKA LABORATORIES LTD. WITH THANKS <i>M. Sanchez</i> TOTAL....\$ 411.25	

FACTURE/INVOICE ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS
ESTABLISHED 1928



APPENDIX A. (L 893843)

SITE A.

- 7001- carb altered rocks, grey, rim of alteration
- 7002- q.v.
- 7003- altered rocks
- 7004- alt. rx., q.v.
- 7005- q.v. pyrite
- 7006- alt. rx. pyrite,
- 7007- alt. rx. q.v., stringers, pyrite
- 7008- alt. rx, pyrite
- 7009- alt. rx.
- 7010- alt.rx,q.v.stringers, pyrite
- 7011- q.v., pyrite
- 7012- alt.rx.

SITE B.

- 7013- blue-grey q.v., pyrite
- 7014- blue-grey q.v.,pyrite
- 7015- blue quartz, sulphides
- 7016- q.v.,pyrite
- 7017- q.v. with pyrite

SITE C.

- 7018- q.v., alt rx
- 7019- q.v., alt. rx
- 7020- bleached silicious rock

SITE D.

- 7021- q.v.
- 7022-alt.rx, q.v.
- 7023- alt.rx, q.v.

SITE E.

- 7024- white q.v.
- 7025- alt. rx. narrow stringer,
- 7026- wide q.v.
- 7027- wide q.v.

SITE F.

- 7028- q.v.
- 7029- q.v.,alt.rx.
- 7030- q.v.
- 7031- q.v.
- 7032- q.v.
- 7033- q.v.
- 7034- alt.rx, stringers,pyrite
- 7035- alt. rx, stringers,pyrite

CERTIFICATE OF THE AUTHOR

I, S.A. Gamble of 70 First Street, Kirkland Lake, Ontario formerly of Kamloops, British Columbia, certify that:

1. I am a prospector residing at the above address and have held an Ontario Prospector's licence since 1979.
2. I am a graduate of the University of Ottawa, and Simon Fraser University, and I have studied earth science for two years at the University of Ottawa, and one year at Laurentian University.
3. I have more than ten years relevant practical experience relating to prospecting.
4. I have in conjunction with B. G. Cook, planned, directed, and carried out the work represented by this report. I have of my own accord made the recommendations contained in this report.
5. I hold a 50% interest in M.C. L 893843.

Respectfully submitted,


S. A. Gamble

January 22, 1990



31M13NW0045 2.13066 CATHARINE

020

2.13066

ASSESSMENT REPORT
RADIOMETRIC SURVEY
M.C. L 893843
LOT 6, CONCESSION III
CATHARINE TOWNSHIP
DISTRICT OF TIMISKAMING

S. A. Gamble
January 22, 1990



31M13NW0045 2.13066 CATHARINE

020C

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MAPS

LOCATION MAP.....	2A
RADIOMETRIC SURVEY...(Back Pocket)	

INTRODUCTION

This report contains the results of a radiometric survey carried out on Mining Claim L 893843 in Catharine Township in October of 1989.

The purpose of the survey was to conduct a detailed exploration of the rocks to determine if any properties associated with radioactivity were present; and to investigate the possibility of using the BGS-4 instrument as a general mapping aid.

LOCATION AND ACCESS

Mining claim L 893843 is situated in the Township of Catharine and consists of the NW $\frac{1}{4}$ of the N $\frac{1}{2}$ of Lot 6, Concession III. (See location Map)

The property is reached by travelling north from Englehart, on Highway 624 approximately 14 miles to where a well used bush road leaves Highway 624 towards the northwest. This road can be followed by truck for approximately 3 miles to where an overgrown logging road leads south. This overgrown logging road leads to the bush trail to the property approximately $\frac{3}{4}$ mile south.

HISTORY

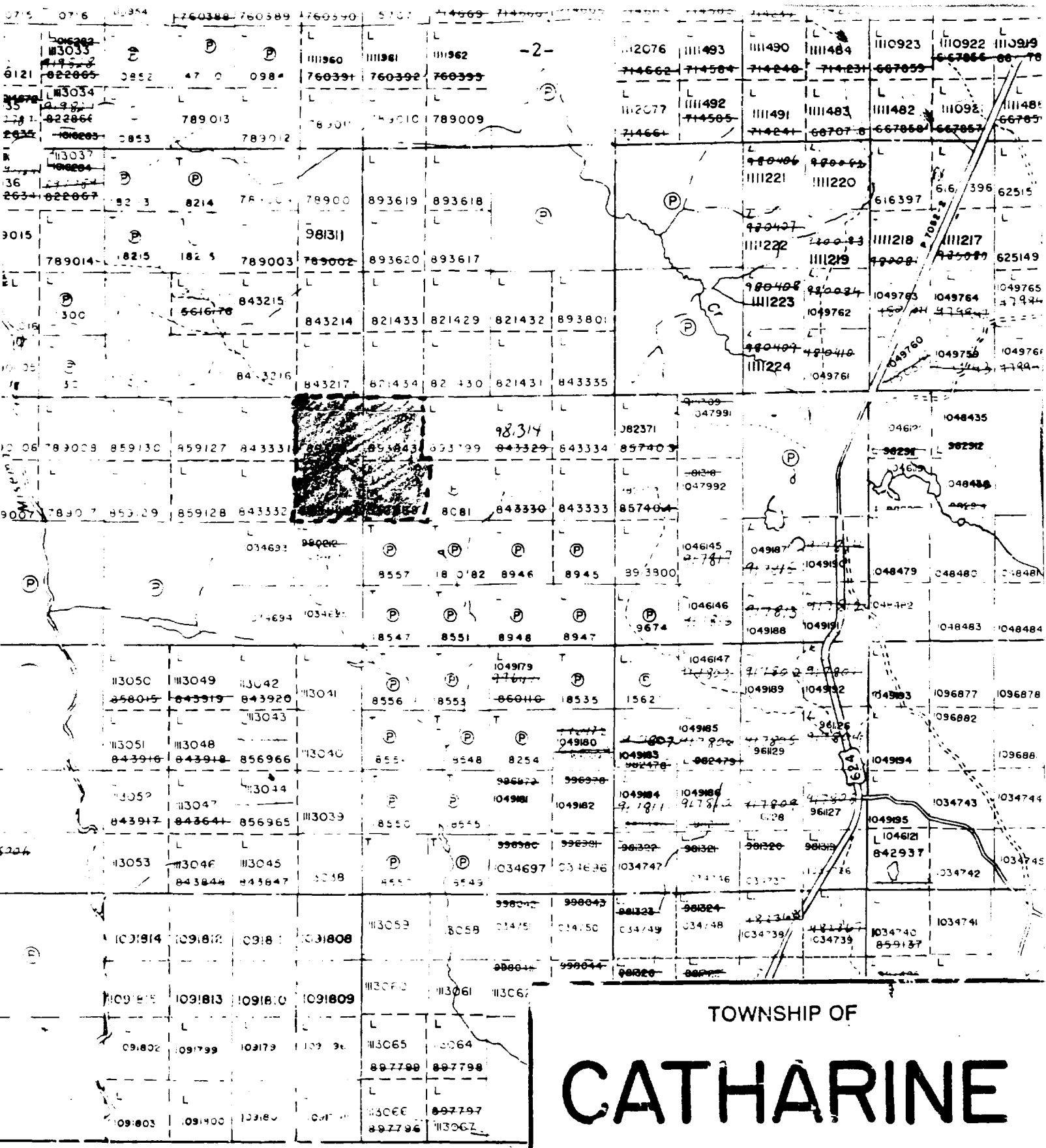
A number of individuals and companies have held the property since 1916. It had been part of a group of claims adjacent to the "shaft" claim of Ostrom Gold Mines and Canora Gold Copper Mines Ltd. (also Primary Gold Mines). In the early 1970's it was held by Moncrieff Uranium Mines Ltd. as part of the J.M. French claims.

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The topography of Mining Claim L 893843 is generally rock outcrop with local relief varying within 6 meters. Low wet areas occur between outcrops. The western boundary runs through a large beaverpond from the number 3 post for approximately 320 feet to where rocky ground is again encountered.

Vegetation consists of mixed evergreen and deciduous bush typical of Northern Ontario second growth. Alders occur in the low areas and on the overgrown roads.



LOCATION MAP.

MARTER TP.

TOWNSHIP OF
CATHARINE

DISTRICT OF
 TIMISKAMING

LARDER LAKE
 MINING DIVISION

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

RADIOMETRIC SURVEY

In October ,1989 a Scintrex BGS-4 was carried along all pre-existing grid lines. Continuous digital display and the audio output of the instrument were both used simultaneously to determine if any anomalous values were present. Numerical readings of the digital display were recorded at all stations, and later plotted on the map which accompanies this report.

The readings varied from a low of 20cps (counts per second) to a high of 59 cps.(See map,) These readings were only slightly varied from the background range calculated at 30 to 42 cps.

Gamma rays may arise from K,Th, U, or their daughter products with gamma ray intensity decreasing exponentially in passing through matter. Only one meter of overburden may at times stop gamma rays completely. Taking into account the topography of L 893843 which varies from low wet areas to outcroppings, and the depth of the overburden; the energies of gamma rays reaching the detector were very insignificant.

CONCLUSIONS AND RECOMMENDATIONS

Due to the low contrast in BGS-4 readings across M.C. L 893843 no further investigation with the BGS-4 is warranted.

No consistent relation between underlying geological changes and the BGS-4 readings was observed, therefore it is concluded that using the BGS-4 as a mapping aid would not be beneficial in this case.

4. Specifications of the BGS-4

The BGS-4 has been carefully designed and engineered to meet the following specifications:-

Detector	Thallium activated sodium iodide crystal and photomultiplier assembly, hermetically sealed, magnetically shielded and encapsulated to keep temperature and mechanical shocks to a minimum. Special ruggedized bond between crystal and photomultiplier tube.
Crystal Volume	5.0 cubic inches; 82 cc.
Crystal Dimensions	Near-cubic 1.6 x 1.6 x 1.96 inches; 405 x 405 x 500 mm.
High Voltage Supply	Generated by internal converter. Nominally 750 V.
Energy Response	Broadband; all gamma energies above 0.05 MeV.
Equivalent Elemental Response	15 cps/% K 15 cps/ppm eU 5 cps/ppm cTh
Accuracy	±5%.

Audio Output	Response time constant is $\frac{1}{4}$ second. The frequency of the output is proportional to the excess count-rate over the threshold. The frequency will increase from a few counts per second to 2,000 cps in the Normal Range and up to 20,000 cps in the High Range. The threshold is continuously variable.
Visual Display	Liquid crystal display up to 1999. Normal Range (x1) plus High Range (x10) permit readings up to 19,990 cps Indication of battery condition.
Temperature Range	With the exception of the digital display, all technical specifications are met over the range of -20° to $+55^{\circ}\text{C}$. It is also recommended to store the instrument within this temperature range to protect the detector. The BGS-4 liquid crystal display digits may begin to change slowly at about -10°C and slow even more at lower temperatures.
Power Supply	4 'D' cells installed under removable handle assembly. Alkaline cells give 40 hours of continuous use at 20°C , without alarm. Battery condition displayed on digital display.
Dimensions	260 x 180 x 95 mm overall, including handle.
Weight	2.3 kg including batteries.
Standard Accessories	Clip-on shoulder strap for hands-free operation. Thorium test sample.
Optional Accessory	Foam-lined, fibre or metal carrying case.
Shipping Weight	Approximately 4 kg; 6 kg with fibre case.

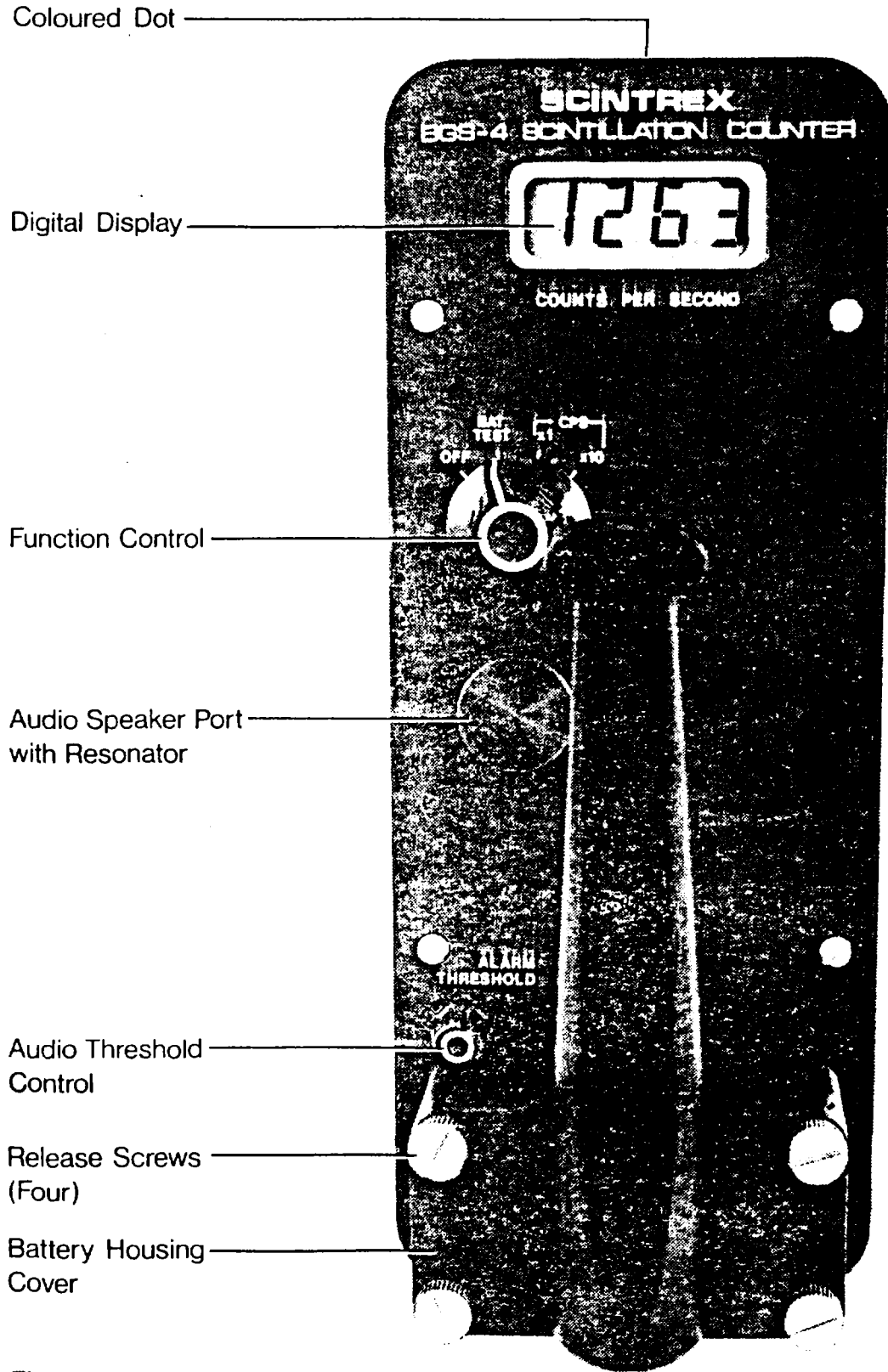


Figure 1

CERTIFICATE OF THE AUTHOR

I, S. A. Gamble, of 70 First Street, Kirkland Lake, Ont., formerly of Kamloops, British Columbia, certify that:

1. I am a prospector residing at the above address and have held an Ontario Prospector's licence since 1979.
2. I am a graduate of the University of Ottawa and Simon Fraser University, and I have studied earth science for two years at the University of Ottawa, and one year at Laurentian University.
3. I have more than ten years relevant practical experience relating to prospecting.
4. I have in conjunction with B.G. Cook planned, directed, and carried out the geophysical survey represented by this report. I have interpreted the results of this survey.
5. I hold a 50% interest in M.C. L 893843.

Respectfully submitted,



S.A. Gamble
January 23, 1990

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____
Station interval _____ Line spacing _____
Profile scale _____
Contour interval _____

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

ELECTROMAGNETIC
Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____ (specify V.L.F. station)
Parameters measured _____

GRAVITY
Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____

INDUCED POLARIZATION
Elevation accuracy _____
Instrument _____
Method Time Domain Frequency Domain
Parameters - On time _____ Frequency _____
- Off time _____ Range _____
- Delay time _____
- Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____
Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument Scintrex BGS-4 Gamma-Ray Scintillation Counter
Values measured continuous with readings at stations in counts per second.
Energy windows (levels) above 0.05 MeV, (varied between 20cps-59cps); (x1) (x10)
Height of instrument waist height Background Count 6cps
Size of detector as per specifications for the BGS-4 Scintrex (see report)
Overburden clay and till mix, to a depth of 8 feet
(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 _____



File _____

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 _____

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) Radiometric
Township or Area Catharine
Claim Holder(s) B. G. Cook & S.A. Gamble
Survey Company self
Author of Report S. A. Gamble
Address of Author 70 First St. Kirkland Lake, Ont. P2N 1N3
Covering Dates of Survey October 29, 1990 - Jan. 1990
(linecutting to office)
Total Miles of Line Cut existing grid

SPECIAL PROVISIONS CREDITS REQUESTED
ENTER 40 days (includes line cutting) for first survey.
ENTER 20 days for each additional survey using same grid.
Geophysical
-Electromagnetic
-Magnetometer
-Radiometric 20
-Other
Geological
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE Jan 23/1990 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications Q 10687

Previous Surveys Table with columns: File No., Type, Date, Claim Holder

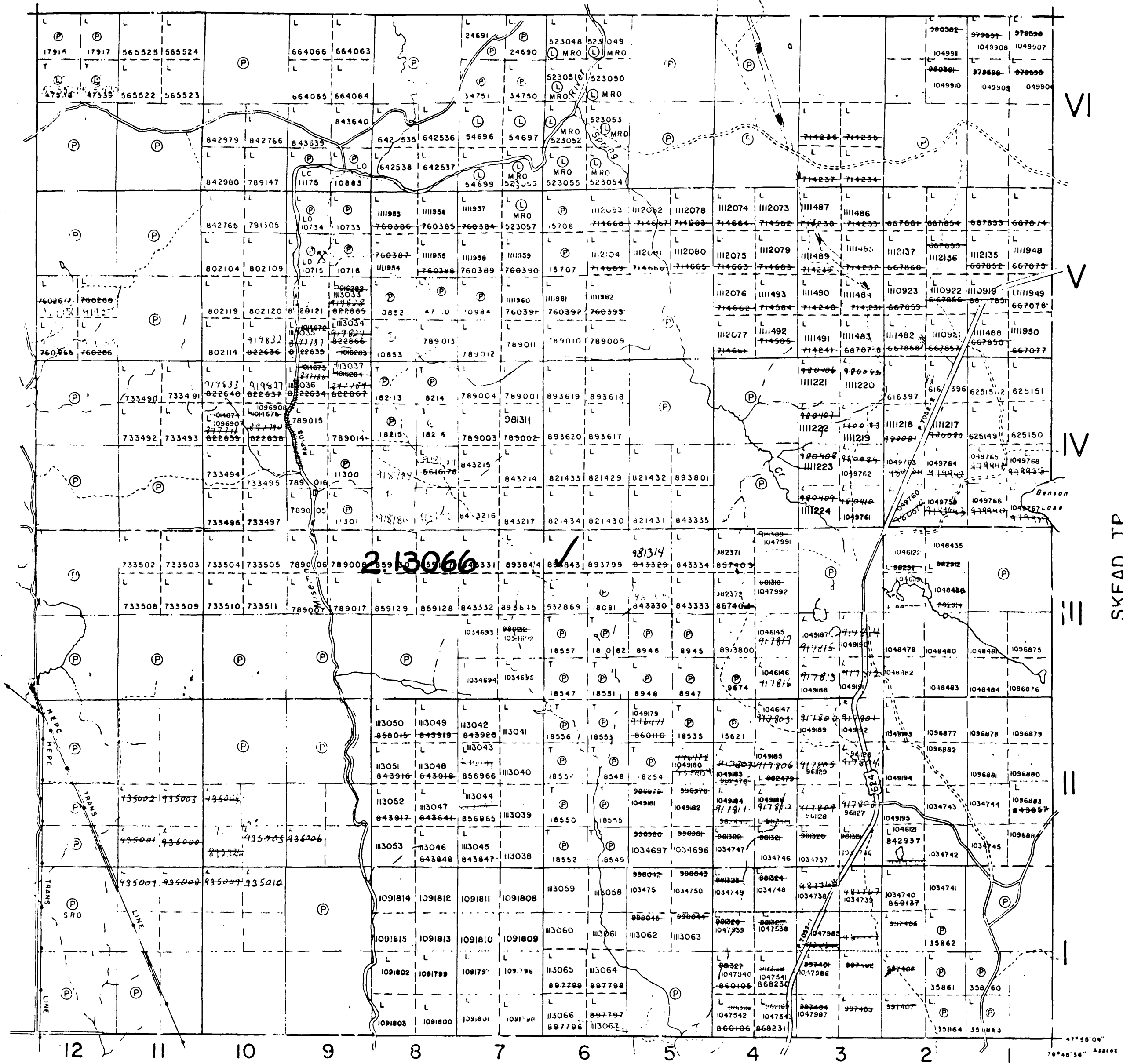
MINING CLAIMS TRAVERSED Table with columns: L. (prefix), (number)

TOTAL CLAIMS _____

OFFICE USE ONLY

If space insufficient, attach list

PACAUD 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 #	Date	Disposition

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

LEGEND

- PATENTED LAND (P)
- PATENTED FOR SURFACE RIGHTS ONLY (P)
- LEASE
- LICENSE OF OCCUPATION
- CROWN LAND SALES
- LOCATED LAND
- CANCELLED
- MINING RIGHTS ONLY (M)
- SURFACE RIGHTS ONLY (S)
- HIGHWAY & ROUTE NO.
- ROADS
- TRAILS
- RAILWAYS
- POWER LINES
- MARS: OR MUSKEG
- MINES

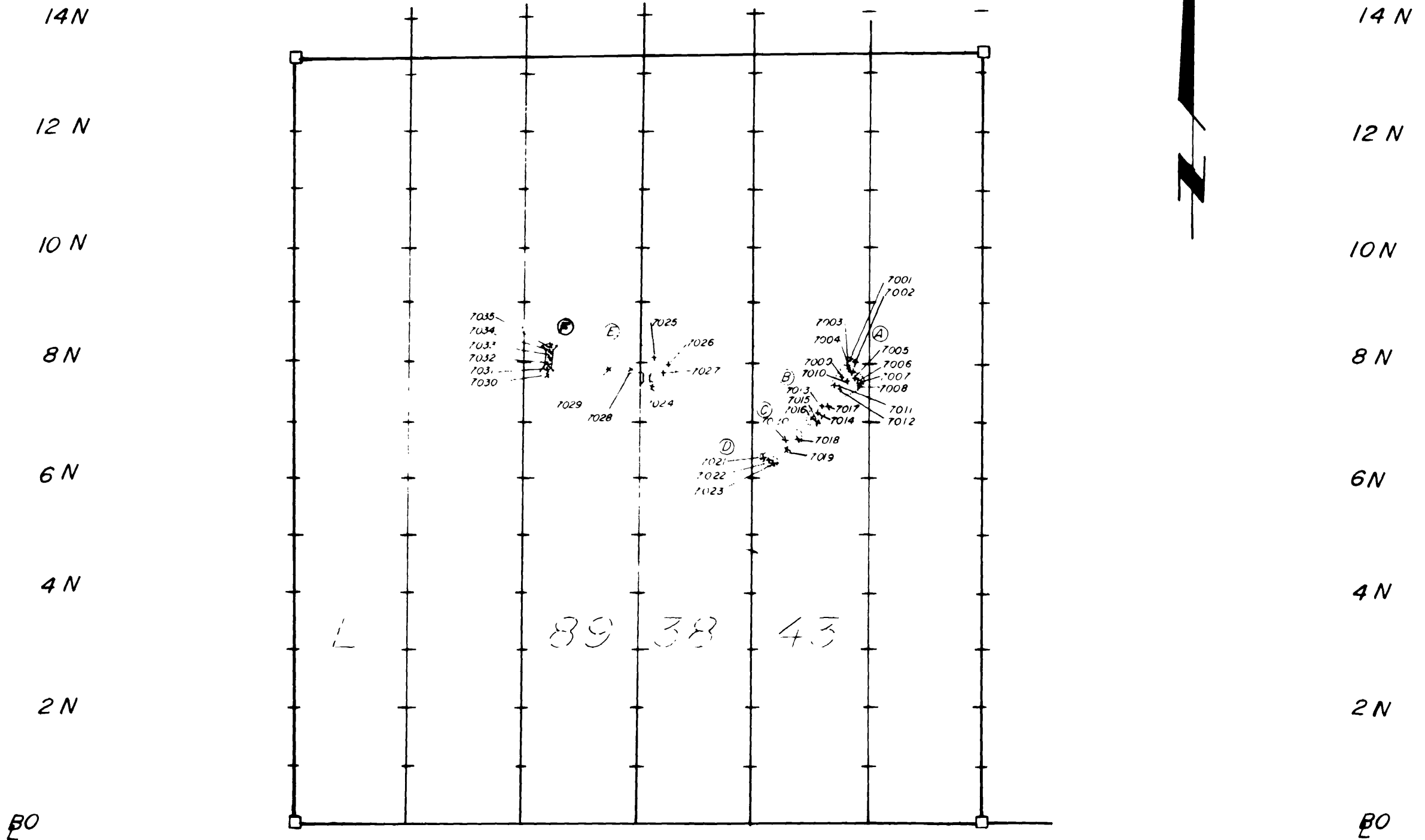
*Used only with numerical locations or when space is limited

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

SR. PLAN NO. G-3615
DATE JULY 1986



2W 0 2E 4E 6E 8E 10E

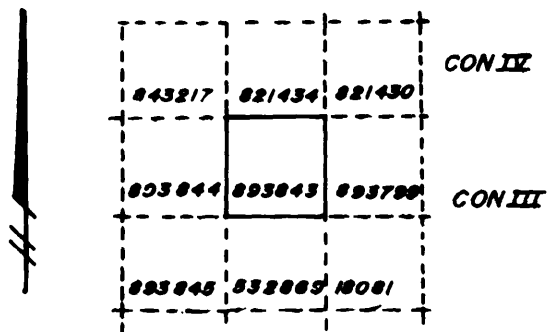


LEGEND:
 SAMPLE NUMBER 7001
 SITE (A)
 OUTCROP
 GRID LINE |
 CLAIM POST □

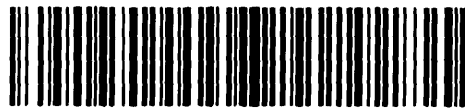
2W 0 2E 4E 6E 8E 10E 12E

SCALE: 1" = 200 FEET
 0 200 400 600

CATHARINE TOWNSHIP



LOT 7 LOT 6
 KEY PLAN: 1 INCH = 2640 FEET



31M13NW0045 2.13066 CATHARINE

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KIRKLAND LAKE, ONT. S.A. GAMBLE
 JANUARY 31, 1990

COOK GAMBLE CLAIM
 CATHARINE TOWNSHIP
 DISTRICT OF TIMISKAMING 2.13066
 L 893843
 ROCK SAMPLE LOCATIONS

2W 0 2E 4E 6E 8E 10E

14 N

12 N

10 N

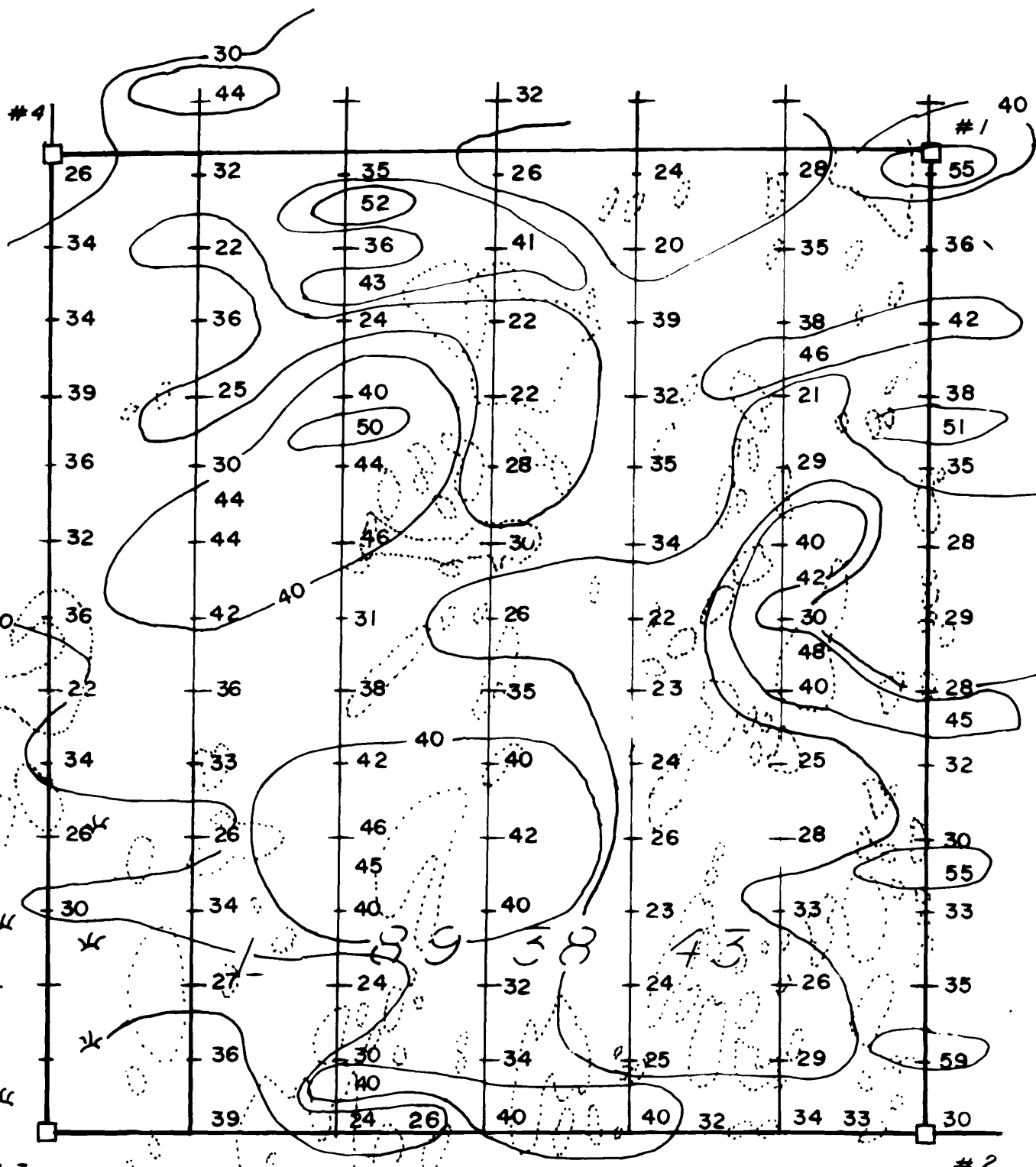
8 N

6 N

4 N

2 N

BO



14 N

12 N

10 N

8 N

6 N

4 N

2 N

BO

2W 0 2E 4E 6E 8E 10E 12E

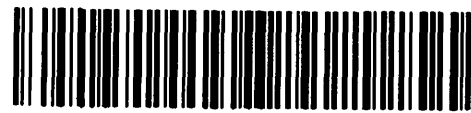
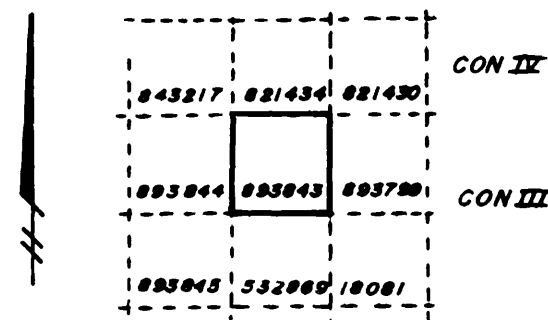
LEGEND

- GRID LINE
- STATION
- CONTOUR LINE
- OUTCROP
- CONTOUR INTERVAL: 10 C.P.S.

SCALE: 1" = 200 FEET



CATHARINE TOWNSHIP



31M13NW0045 2.13066 CATHARINE

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KIRKLAND LAKE, ONT. S.A. GAMBLE
JANUARY 22, 1990

COOK - GAMBLE CLAIM
 CATHARINE TOWNSHIP
 DISTRICT OF TIMISKAMING
 L 893843
 RADIOMETRIC SURVEY

2.13066

LOT 7 LOT 6
KEY PLAN: 1 INCH = 2640 FEET