

52 F / 16 NW - 0053

Load: - Combo

2.415



52F16NW0070 52F16NW0053 ECHO

010

2.415

REPORT ON
ELECTROMAGNETIC SURVEYS
WINDFALL OILS AND MINES LIMITED
23-CLAIM GROUP
SIOUX LOOKOUT AREA
PATRICIA MINING DIVISION
ONTARIO

RECEIVED

MAY 13 1971

PROJECTS
SECTION

December 31, 1970.

CANA EXPLORATION CONSULTANTS LIMITED



52F16NW0070 52F16NW0053 ECHO

010C

CONTENTS

	<u>Page</u>
Introductions.....	1
Property, Location and Access.....	1
General Geology.....	2
Mineral Occurrences.....	3
Aeromagnetic Data.....	4
Survey Data.....	5
Survey Results and Interpretation.....	5
Conclusions and Recommendation.....	7

Plan: Electromagnetic Survey Data on Property of
 Windfall Oils & Mines Limited
 Echo and McAree Townships,
 Patricia Mining Division
 Ontario

Scale: 1" = 200'

Dec. 1970

The President and Directors,
Windfall Oils and Mines Limited,
Suite 1921,
44 King Street West,
Toronto, Ontario.

Lady and Gentlemen:

This report describes a program of electromagnetic surveys carried out on your property located in Echo and McAree Townships, Sioux Lookout area, Ontario. The survey results are depicted on the accompanying plan, plotted to a scale 1" = 200'.

PROPERTY, LOCATION AND ACCESS -

The property is comprised of the following 23 claims:

Echo Township (13 patented claims)

KRL-21447 to 21456, inclusive,
KRL-22678 to 22680, inclusive;

McAree Township (6 patented claims)

KRL-22681 to 22686, inclusive;

McAree Township (4 un-patented claims)

PA-234595 to 234598, inclusive.

The 4 un-patented mining claims were staked in September, 1970. The south boundary of this 4-claim group ties on to the north of claims PA-202981 to 202984 inclusive, staked by others, and its north part is apparently overlapping part of your patented ground due to the failure in locating old claim posts for tying on. The west boundary of the property was located and re-blazed during the survey but the newly blazed north and east boundaries were very approximate.

The property is located to the immediate east of Crossecho Lake at the southwest corner of Echo Township. Its south boundary is at about 3/4 mile to the northwest of Highway 72 which leads from Dinorwic at C. P. R. and Highway 17, to Sioux Lookout.

Access was readily made by motor car from Dinorwic for about 17 miles along Highway 72 to a gravel road which turns westerly for about 2-1/2 miles to the shaft area at the northeast part of your property. The gravel road traverses the neighbouring property of Newlund mines Limited and there are good mine buildings standing between the Newlund shaft and the shaft located on your property.

GENERAL GEOLOGY

General geology of the area is on Map 2115, 1967, O. D. M. and Index Map of the Sioux Lookout Area, 1951, O. D. M. These maps showed that the property is located on a greenstone belt of about 2 to 4 mile wide, striking northeasterly from near Dryden to the immediate south of Sioux Lookout where the belt widened considerably. The greenstone belt is bordered by parallel zones of metasediments to the northwest and southeast and intruded by Archean acid igneous rock. A boss of acid intrusive located to the immediate west of your property is mainly granite. Smaller occurrences of acidic igneous rocks located at Newlund and to the northeast are porphyry. There are granodiorite dikes running southwesterly across the north and southwest parts of your

property. These granodiorite dikes are important host rocks to the known gold occurrences located within this greenstone belt. They have a general sill-like conformity to the northeast - striking lava flow.

Map 2115, O. D. M. showed that the lava flows are mainly intermediate to basic volcanics. There is, however, a zone of acidic volcanics located along the southeast boundary of the greenstone belt, between the southeast part of your property and the Pickerel Arm of Minnitaki Lake to the northeast. Exact relationships between the volcanics and metasediments are obscured by faulting along the contacts.

MINERAL OCCURRENCES

According to a preliminary report by E. O. Chisholm, 1951, O. D. M., the gold ore of your property occurs in transverse tension fractures in clusters along the footwall of the granodiorite dike located at the north part of your property. A shaft was sunk 2,400 feet west of the Newlund shaft to a depth of 255 feet, and drifts were on the 200 foot horizon to the east and west. The mineralization is similar to that developed on the Newlund property. Diamond-drilling was found to have limitations in outlining ore and it served only to indicate favourable zones for underground exploration.

Four gold-bearing zones were outlined on the Newlund property, all near the southwestern part of the property. The west ore body is reported to be 720 feet in length and averages 32 feet in width, with an estimated grade of around 0.25 oz. per ton. The individual quartz-filled fractures that make up the zones strike N10°E. and dip to the west at 45°.

The mineralization consists mainly of pyrite in streaks and dissemination. Minor amounts of chalcopyrite, ilmenite, sphalerite, galena and altaite occur. The density of the pyrite mineralization amounts to 50% in some cases.

Gold is of greatest economic importance in the Sioux Lookout area, though copper, lead and zinc, and molybdenum mineralization is widespread in narrow veins. The base metal deposits now under development at Sturgeon Lake is located at about 60 miles to the east.

AEROMAGNETIC DATA

Aeromagnetic data on Map 1148G, O.D.M. shows a north-east trending magnetic anomaly across your property, with its center located approximately at the southeast part of claims KRL-21452. The peak of the anomaly is 61,500 gammas. It is indeed the strongest aeromagnetic anomaly outlined along the 50 mile long greenstone belt where the property is located.

SURVEY DATA

A northwest-southeast line-grid was cut and chained on the property at 400 ft. intervals for the electromagnetic surveys. The known and assumed boundaries of the property were reblazed prior to line cutting. The main base line (baseline No. 1) was laid out across the central part of the property at N45°E for the turn-off of picket lines. Four other short base lines were required for the turn-off of picket lines to cover the property. In all, 22.76 miles of base lines and picket lines was cut and chained with 100 ft. stations for the surveys.

The picket lines were first covered by a Ronka EM-16 survey using available station NAA, and check indications were checked by using a Ronka MK IV unit, with a 300 ft. cable. In all, 20.71 miles of Ronka EM-16 survey and 3.1 miles of Ronka MK IV check survey were carried out. It took 4 days field work to perform the Ronka Mark IV check survey. An additional day was required to apply T. N. T. to blast open a mineralized smooth outcrop located within an old trench near a strong conductor.

SURVEY RESULTS AND INTERPRETATION

The Ronka EM-16 encountered many east-west and southwest-northeasterly trending conductors on the property as shown on the plan accompanying this report. Most of these are elongated to indicate

interesting structures. A few of these indications has the characteristics of being associated with some conductive minerals. At the shaft area, there is a zone which runs east-westerly across the north part of the property along the area where intensive exploration diamond drilling was carried out in the fifties for gold along a granodiorite dike. There are three short conductors which appeared to be associated with this zone. The best of these is located at about 650 ft. to the north of the shaft.

At about 1200 ft. to the south of the shaft zone, the survey encountered a long conductor zone which is parallel to the shaft zone for 3/4 of a mile then turned southwesterly toward the area of another granodiorite dike which was explored by others to the immediate southwest of your property. It follows that there could be another unknown occurrence of gold bearing granodiorite dike or sill to be located on the property.

To the southeast of the above said zones of Ronka EM-16 indications there are 13 other short and up to 1/2 mile long indications, most of which appear to be indicating series of fault or shear structures broken by cross faults in places.

The Ronka MK IV electromagnetic check data showed that all but one of the above said zones of indications is a good conductor with appreciable concentrations of conductive minerals. This good

conductor is located along the south boundary of new claim PA234597, open to the east and west. An old trench with a smooth bedrock, located at 3750 ft. southeast of L-36SW and about 50 ft. or more north from an axis of this good conducting zone, was sampled by blasting. The samples collected by the operators showed heavy concentrations of very fine grained pyrite in parts of the light colored rhyolite. There are odd specks of likely bornite. Spectrographic analysis by X-Ray Assay Laboratories of Don Mills, Ontario, found traces of copper, lead, zinc, molybdenum, nickel and gold.

CONCLUSIONS AND RECOMMENDATIONS:

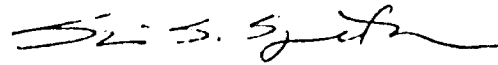
The Ronka EM-16 survey obtained many elongated indications, one of which is apparently along the granodiorite dike where extensive old drilling was performed to outline gold ore bodies. A similar and parallel zone is inferred as a possible occurrence of the same. Many of the other indicated zones are inferred as series of fault or shear zones within the volcanics and cut by cross faults in places.

An outstanding good conducting zone located along the south boundary of claim PA-234597 is inferred as indicating an appreciable concentration of conductive sulphides. A rhyolite sample obtained nearby assayed traces of base metals and gold. The occurrence of mineralized rhyolite in the vicinity of a good conductor is considered very interesting and warrants test diamond-drilling. Choice location for such

drilling is near the southeast end of L40SW, where the geophysical indications are strongest. However, because of the fact that the conductor zone is open at both ends and located too close to the boundary of your property, diamond-drilling is not recommended to be carried out until efforts have been made to acquire the adjoining ground to the south.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED



S. S. Szetu, Ph. D. P. Eng.

SSS:at

Toronto, Ontario
December 31, 1970



CANA EXPLORATION CONSULTANTS LIMITED



52F16NW0070 52F16NW0053 ECHO

2.415

900
SPECIAL PROVISION
ASSESSMENT WORK DETAILS

RECEIVED
MAY 13 1971

PROJECTS
SECTION

NAMES AND ADDRESSES

Chief Line Cutter or Contractor Eric Vehkalahti, Matheson, Ontario.
Party Chief Joo Kakish, Ste. 426, 12 Richmond St. E., Toronto.
Consultant S. S. Szetu, " " " "

COVERING DATES

Line Cutting Period Sept. 16 - Dec. 3rd, 1970
Field and Office Oct. 10-27th, Nov. 1-30th, Dec. 1-4th, Dec. 7-31, 1971.

INSTRUMENT DATA

Make, Model and Type Ronka Em-16
Scale Constant or Sensitivity _____
or provide copy of instrument data from Manufacturer's brochure
Total Number of Stations Within Claim Group 255 within Pa-234595-234598
Number of Miles of Line cut Within Claim Group 22.76 miles (including 19 unpatented claims)

ASSESSMENT WORK CREDITS REQUESTED

Geological Survey _____ Days per Claim
Geophysical Survey 40 Days per Claim

MINING CLAIMS TRAVERSED

Pa-234595 to 234598, inclusive (and 19 patented claims)

TOTAL 160

DATE May 10, 1971 SIGNED [Signature]

A separate form is required for each type of survey

Appendix- Details of Instruments

(a) Type of instruments:-

Ronka EM-16, Serial #5, manufactured by Geonics Ltd. of Toronto; Ronka Mark IV unit, Serial #55 with a 300 foot cable, manufactured by Hunttec Ltd. , Toronto.

(B) Specifications:-

Ronka EM- 6: horizontal primary field from VLF transmitting station NAA, Cutler, Maine, Freq. 17. 8 kHz, selected by plug-in units; vertical measured field with in-phase and quadrature components and ± 1 % accuracy of readings, $\pm 150\%$ range of measurements for in-phase and $\pm 40\%$ for quadrature; null-detection by an earphone. real and quadrature components out-put read-out from mechanical dials; size 16x5. 5x3. 5 in. ; receiver powered by six AA penlight cells.

Ronka Mark IV unit: power out-put at 876 cy/sec. , 4 watts; power required: Eveready 8 type 950 1. 5 V cells for transmitter, 1 type 781 4. 5 cells for receiver. Coil separation=300 feet. Compensation:null type balance. Overall accuracy of the unit is $\pm 3\%$ of the scal reading $\pm 1\%$.

(C) Survey procedures:-

For the Ronka EM-16 survey, the proper transmitting station was selected with coil parallel to the primary field. Readings were taken with operator facing northerly along lines of the primary field. Both in-phase and out-of-phase readings were taken in percentage. For the Ronka Mark IV check survey, transmitter was behind and readings were recorded at the station of the receiver.

AREA CODE - 416
TELEPHONE - 365-6918



2.415

WHITNEY BLOCK,
QUEEN'S PARK
TORONTO '82, ONT.

DEPARTMENT OF MINES AND NORTHERN AFFAIRS
MINING LANDS BRANCH

January 5, 1972

Mr. W. A. Buchan,
Mining Recorder,
Court House,
Sioux Lookout, Ontario.

Dear Sir:

Re: Mining Claims Pa. 234595 et al,
McAree Township, File 2.415

The Geophysical (Electromagnetic) assessment work credits as shown on the attached list have been approved as of the date above. Please inform the recorded holder and so indicate on your records.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Fred W. Matthews".

Fred W. Matthews,
Supervisor
Projects Section

OJ/nw

encl.

- cc: Windfall Oils and Mines Ltd.,
Suite 1921, 44 King Street W.,
Toronto, Ontario.
- cc: Mr. S.S. Szetu, Consultant
426 - 12 Richmond St. E.
Toronto, Ontario.
- cc: Resident Geologist ✓
Kenora, Ontario.



TECHNICAL ASSESSMENT WORK CREDITS

Recorder Holder Windfall Oils & Mines Limited
Township or Area McAree Township

Type of Survey and number of
Assessment Days Credits per claim

GEOPHYSICAL

Magnetometerdays
Electromagnetic40.....days
Radiometricdays
.....

GEOLOGICAL.....days

GEOCHEMICAL.....days

Man days Ground
Special Provision Airborne

NOTICE OF INTENT TO BE ISSUED

- Credits have been reduced because of partial coverage of claims.
- Credits have been reduced because of corrections to work dates and figures of applicant.
- NO CREDITS have been allowed for the following mining claims as they were not sufficiently covered by the survey:

Mining Claims

Pa. 234595 - 234598 inclusive

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; Geological - 40; Geochemical - 40;

Tagged



ONTARIO

THE MINING ACT REPORT OF WORK

McAREE TWP.
M-2254

A separate form is required for each type of work to be recorded.

#111

To the Recorder of... Patricia Mining Division
I, Windfall Oils & Mines Ltd T-67
name of Recorded Holder
Suite 1921, 44 King Street West Miner's Licence
Post Office Address

do hereby report the performance of 160 days of Electromagnetic survey
not before reported to be applied on the following contiguous claims type of work

Claim No.	Days	Claim No.	Days	Claim No.	Days
PA234595	40				
PA234596	40				
PA234597	40				
PA234598	40				

All the work was performed on Mining Claim (s) ... PA234595-234598
(In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.

- For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations - Names and addresses of the men who performed the work and the dates and hours of their employment.
- For Diamond and other Core Drilling - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate.
- For Compressed Air or Other Power Driven or Mechanical Equipment
Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment.
- For Power Stripping - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording.
- With each of the above types of work sketches are required to show the location and extent of the work in relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate.
- For Geological and Geophysical Survey - The names and addresses of men employed as well as dates. Type of instrument used in the case of geophysical survey. Reports and maps in duplicate must be filed with the Minister within 60 days of recording.
- For Land Survey - the name and address of Ontario Land surveyor.

The Required Information is as Follows: (Attach a list if this space is insufficient)

As per attached Special Provision, Assessment work details

Date May 10, 1971

S. S. Szetu
Signature of Recorded Holder or Agent

The Mining Act
Certificate Verifying Report of Work

I, S. S. Szetu, Consultant,
..... 426-12 Richmond St. E., Toronto
(Post Office Address)

hereby certify:

- That I have a personal and intimate knowledge of the facts set forth in the report of work annexed hereto, having performed the work or witnessed same during and/or after its completion.
- That the annexed report is true

Dated May 10 19 71

PATRICIA
MINING DIV.
RECEIVED
MAY 13 1971
AM 10 11 12 1 2 3 4 5 6 PM

S. S. Szetu
Signature

PA-234595

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS \$500. OR SIX MONTHS IMPRISONMENT OR BOTH

SPECIAL PROVISION
ASSESSMENT WORK DETAILS

NAMES AND ADDRESSES

Chief Line Cutter or Contractor Eric Vehkalahti, Matheson, Ontario.
Party Chief Joe Kakish, Ste 426, 12 Richmond St. E., Toronto
Consultant S. S. Szetu, " " " "

COVERING DATES

Line Cutting Period Sept. 16 - Dec. 3rd, 1970
Field and Office Oct. 10-27th, Nov. 1-30th, Dec. 1-4th, Dec. 7-31, 1970

INSTRUMENT DATA

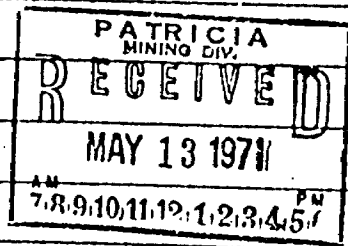
Make, Model and Type Ronka Em-16
Scale Constant or Sensitivity _____
or provide copy of instrument data from Manufacturer's brochure
Total Number of Stations Within Claim Group 255 within Pa-234595-234598
Number of Miles of Line cut Within Claim Group 22.76 miles (including 19 unpatented claims)

ASSESSMENT WORK CREDITS REQUESTED

Geological Survey _____ Days per Claim
Geophysical Survey 40 Days per Claim

MINING CLAIMS TRAVERSED

Pa-234595 to 234598, inclusive (and 19 patented claims)



TOTAL 160

DATE May 10, 1971 SIGNED S. S. Szetu

A separate form is required for each type of survey

PA-234595

McAREE TWP. E.T.

PATRICIA MINING DIVISION
DISTRICT OF KENORA.

Scale, 40 chains to an inch.

Claim
Map

ONTARIO file 2.415

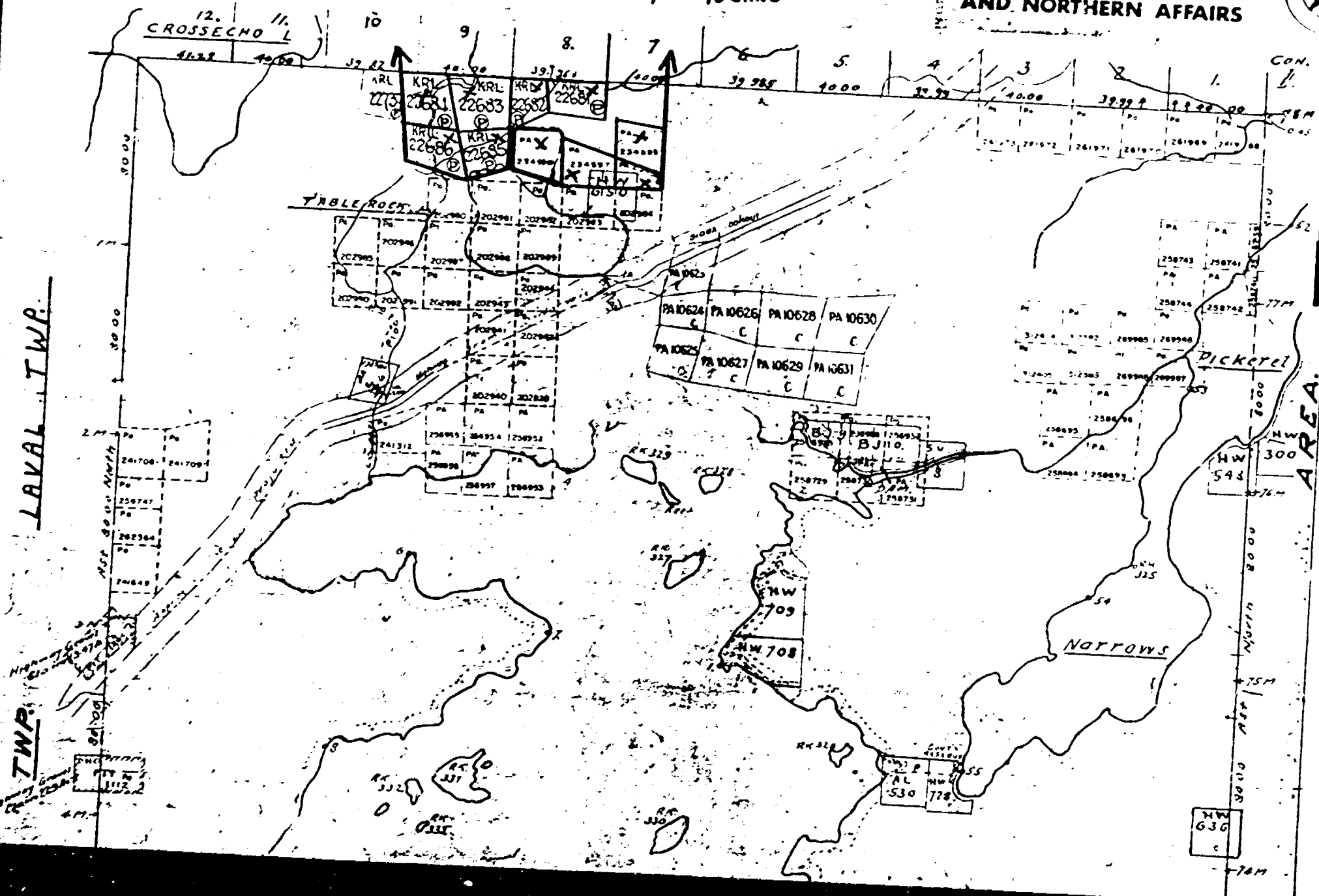
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS



DATE OF ISSUE
DEC 2 1971

ECHO TWP.

Scale
1" = 40 chws



Lomond Twp.

M.2251

THE TOWNSHIP
Claim of Map

ECHO

DISTRICT OF
KENORA

PATRICIA
MINING DIVISION

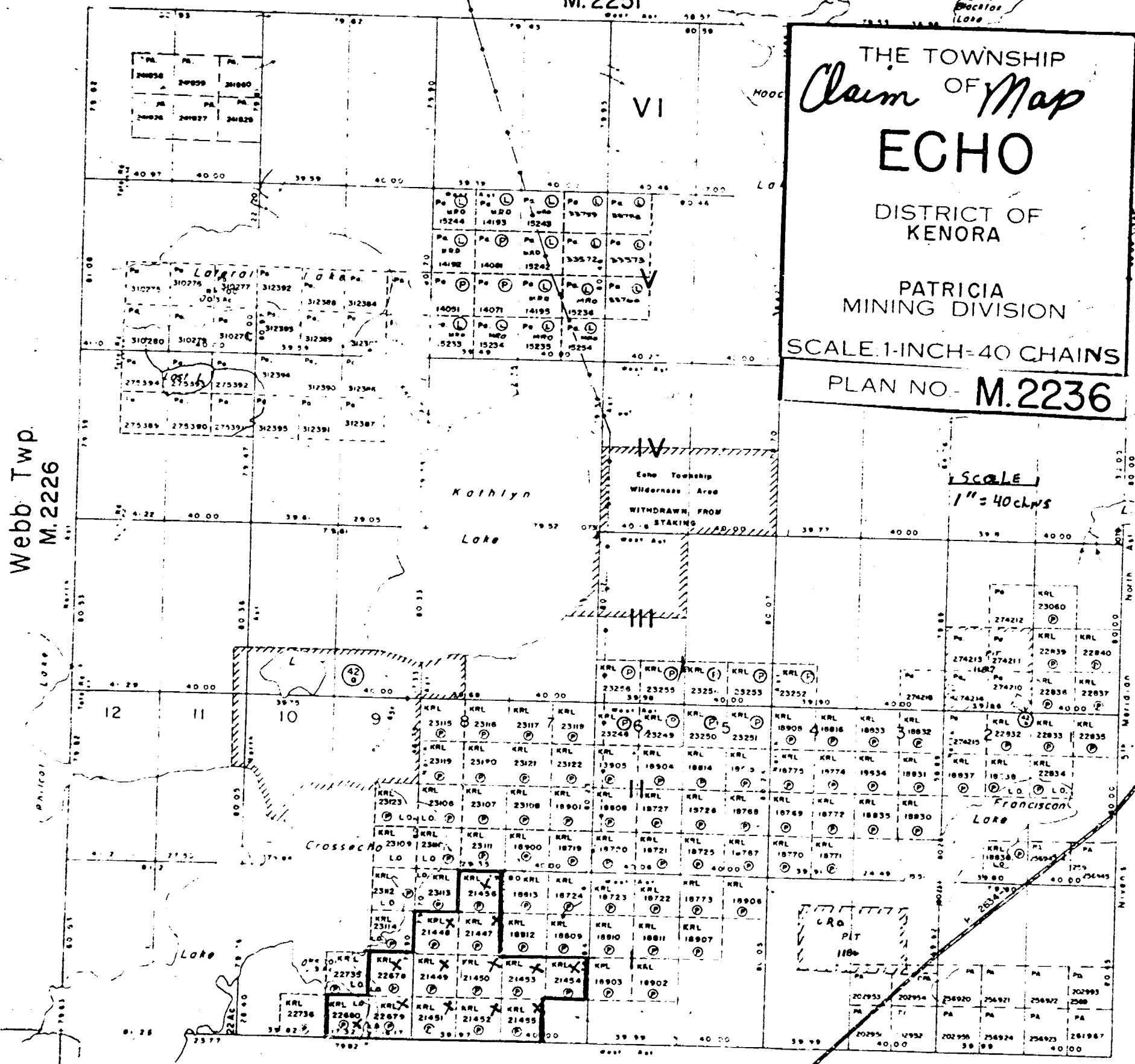
SCALE 1-INCH=40 CHAINS

PLAN NO. M.2236

Webb Twp.
M.2226

Pickereel Twp.

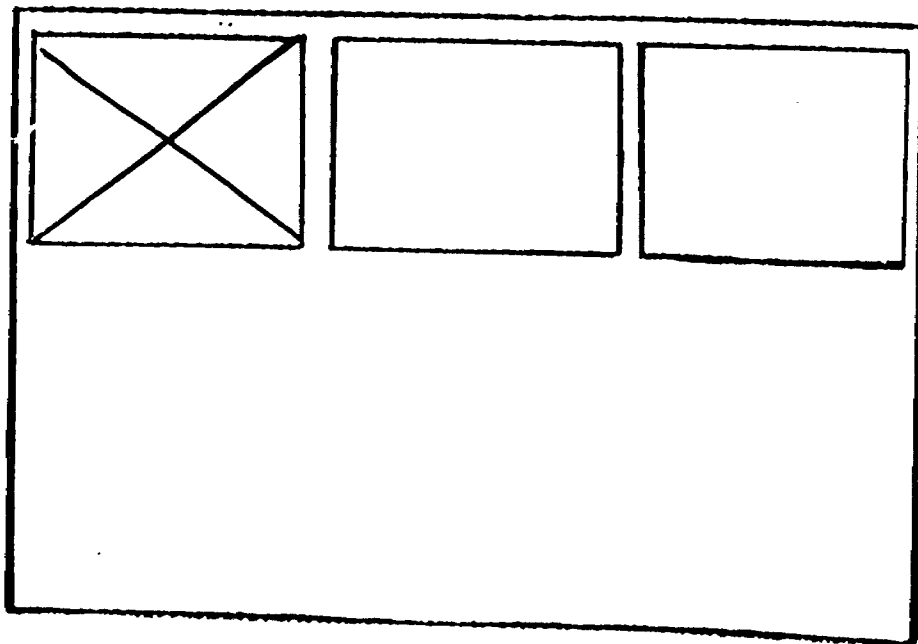
McAree Twp.
M.2254

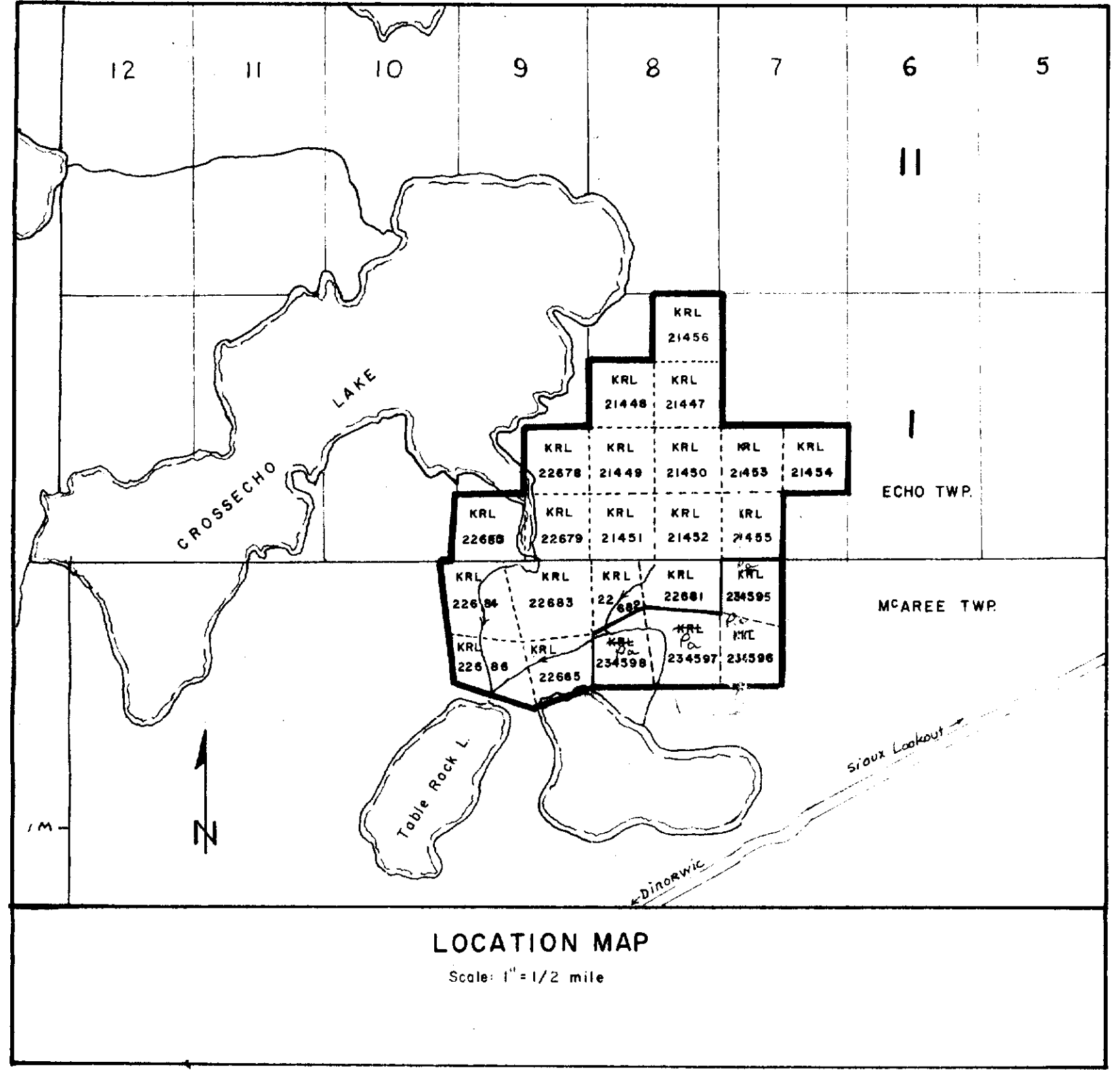


SEE ACCOMPANYING
MAP(S) IDENTIFIED AS

52 F116NW - 0053 #1

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)





CROSSECHO LAKE

AREA OF OLD DIAMOND DRILLING

BASE LINE N^o 2.

BASE LINE N^o 1.

BASE LINE N^o 3.

B. L.

L-0+00

L-12 SW

L-8 SW

L-4 SW

L-4 NE

L-8 NE

L-16 NE

L-12 NE

L-16 SW

L-40 SW

L-36 SW

L-32 SW

L-28 SW

L-24 SW

L-20 SW

LEGEND

Claim post and claim lines

High ground or hill

Outcrop

Cliff

Creek

Bush road

Electromagnetic data obtained by using a Ronka E.M.-16 instrument with operator facing north at right angle to the transmitter location. (TAA).

In-phase readings plotted at left-hand side, out-of-phase readings plotted at right-hand side of each station.

In-phase profile

Out-of-phase profile

Scale of profiles: 1/10" = 4% phase change

Conductor and inferred conductor axis

Direction of Ronka Mark IV traverse, receiver leading
Readings recorded at the receiver station
In-phase readings plotted west and out-of-phase readings
Plotted east of each station

In-phase profile

Out-of-phase profile

Scale of profiles = 1/10" = 4% phase change

Electromagnetic conductor

ELECTROMAGNETIC SURVEY DATA ON PROPERTY OF

WINDFALL OILS & MINES LIMITED

ECHO AND McAREE TOWNSHIPS

PATRICIA MINING DIVISION,
ONTARIO.

Scale: 1" = 200'

Dec. 1970

52 F/16 NW-0053 #1

CANA EXPLORATION CONSULTANTS LIMITED.