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GEOLOGY AND GEOPHYSICS
OF THE SHINING TREE PROPERTY
NATAL TOWNSHIP, ONTARIO

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Toronto, Ontario
April 22, 1991

Qual. this report.

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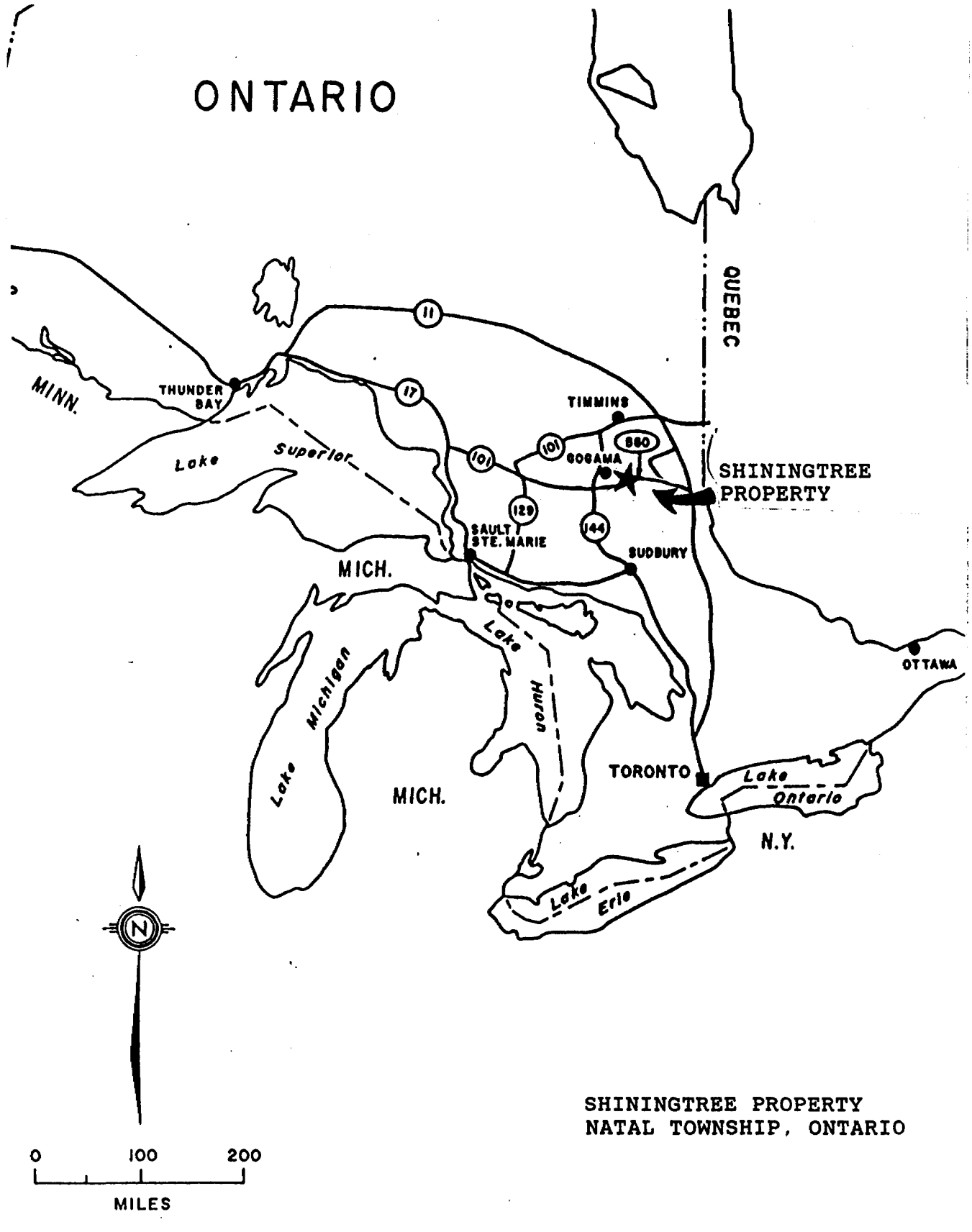
Figure 1. Property Location.



SHININGTREE PROPERTY
NATAL TOWNSHIP, ONTARIO

INTRODUCTION

Eight mining claims in southeast Natal Township, district of Sudbury, (Table 1) were explored for gold and base metals from July to October, 1990. A VLF-EM survey was conducted on six of the claims and seven claims were mapped and/or prospected. These claims are owned by the author.

This report and the accompanying maps describe the work done and summarize the results of the 1990 exploration programe.

Table 1. Mining Claims.

L1133932	L1134041
L1133933	L1134042
L1134039	L1134043
L1134040	L1134044

LOCATION AND ACCESS

The Shiningtree Project area is located in southeastern Natal Township, 18 kilometres northeast of the town of Shining Tree, 160 kilometres north of Sudbury, as shown in Figure 1.

Access from Shining Tree, or from Gowganda to the east, (Figure 2) is by gravel road (Highway 560) to a point approximately two kilometres south of the property. From here, logging roads provide two-wheel drive access to many parts of the claim group.

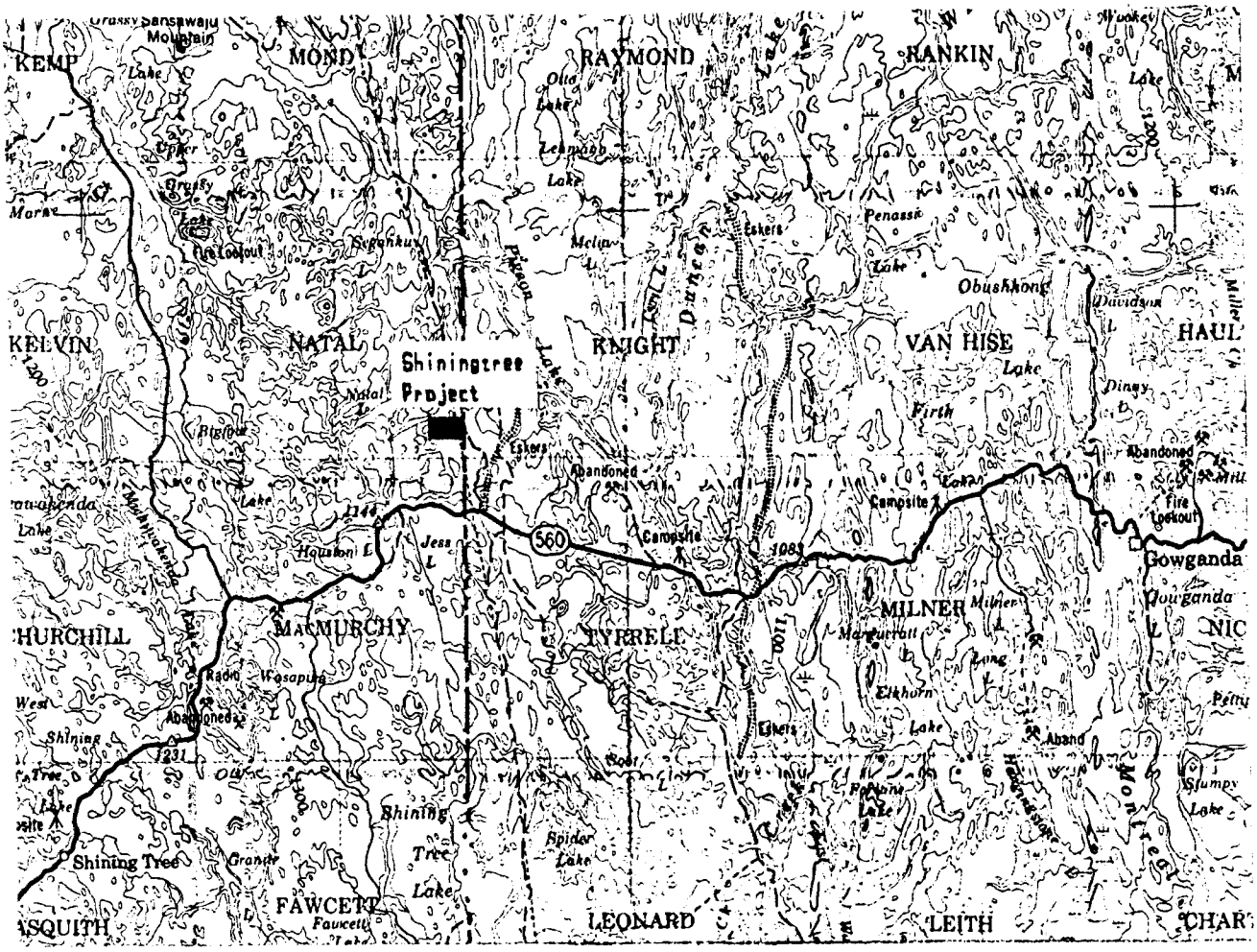
PREVIOUS WORK

No previous work has been conducted on the property by the author. Natal Township was withdrawn from staking by the provincial government from 1973 to April 1990 and little exploration work was done during that time. However, Getty Mines, Limited conducted exploration in, and to the east of, the current project area. Ground geophysics, soil sampling, mapping and the coring of one diamond drill hole comprised their work program. The hole was drilled on what is now claim 1134041.

WORK DONE

Geological mapping, prospecting and ground geophysical surveys were conducted on eight mining claims in Natal Township between July and October, 1990. Mapping and prospecting were conducted on claims numbered 1133932, 1134040, 1134042 and 1134043. Results are tabulated on the Geology Map (in back pocket). A VLF survey was conducted on claims numbered 1133932, 1133933, 1134039, 1134041, 1134043 and 1134044. Results are tabulated on the VLF-EM Map (in back pocket). Prospecting was carried out on parts of claims

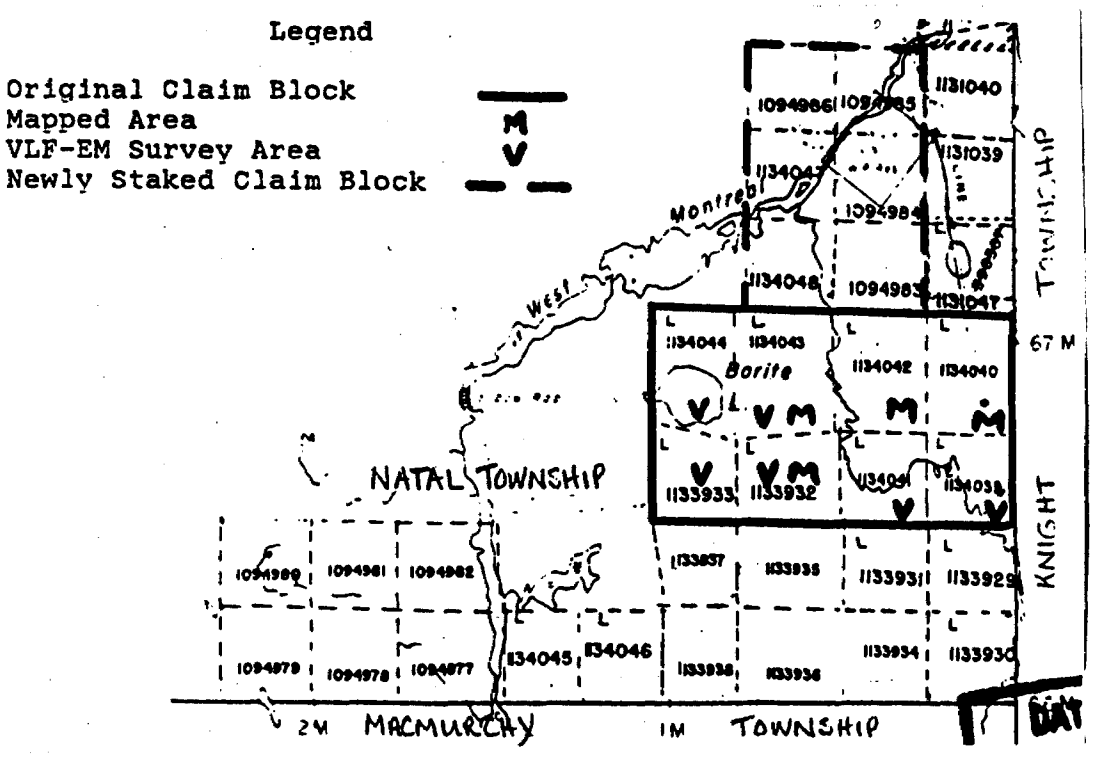
Figure 2. Property Access.



1133933, 1134044 and 1134039. The Prospecting Map (in back pocket) illustrates these results. Six additional claims were staked at the end of the project on the basis of favorable assay results from samples obtained on claims 1134040 and 1134042. The original eight claims, the new claims and the surveyed areas are outlined on Figure 3. A Magnetometer survey was planned for the 1990 field season but was not undertaken due to equipment malfunction.

An east-west baseline was cut, chained and picketed at 25 metre intervals across the southern edge of the eight claim group. Flagged compass lines were turned off to the north from the baseline every 100 metres. A second baseline, L95, was established using the same technique as above, with compass lines turned off to the east and west. Distance on both baselines was determined using Field Ranger 6000 hip chains. Geophysics and geology surveys were conducted using this grid. Rock sample locations were noted in reference to this grid.

Figure 3. Claims; Mapped and VLF-EM Surveyed Areas.



GEOLOGY

The majority of the property is underlain by various types of intermediate to mafic flows and pyroclastic units as illustrated on the accompanying Geology Map. The mapped area is bisected by a fault trending 70° which extends from the southeast border to the northeast corner of Natal Township (Carter, 1987). The rock units and their orientation are different on either side of the fault. The separation along the fault has not been determined.

Individual pyroclastic beds vary from less than a metre in thickness to greater than 10 metres. It is therefore difficult to isolate specific beds when correlating units from outcrop to outcrop. For this reason, broad groupings of units based on the most prevalent types of rocks have been delineated on the map.

Lithology West of the Fault.

On the western side of the fault the rock units strike 070-075° and dip very steeply northwest. They are intruded by an extensive but intermittently exposed diabase dike trending 170°. From south to north the lithology is as follows:

The southern boundary area is underlain by a group of rock units consisting of intermediate crystal tuffs and porphyritic flows. The tuffs are medium grained, grey-green to purple-grey with easily visible feldspar crystals and

small lapilli sized chlorite clots. These units are intercalated with aphanitic, medium grey-green, massive flows containing feldspar phenocrysts.
A small wedge of intermediate lapilli tuff and crystal tuff underlies the southwest corner of the mapped area. The lapilli tuff units exhibit a fine to medium grained matrix with both aphanitic and phaneritic intermediate volcanic fragments comprising up to 70% of the rock. The crystal tuffs are similar to those previously described.

Overlying this wedge are two groups of ash and lapilli tuffs. Ash tuffs predominate in the southern group, lapilli tuffs with aphanitic fragments predominate in the group to the north.

Further north, agglomerate (bomb tuff) and ash tuff units are intercalated in roughly equal volume. Agglomerates are characterized by fine to medium grained matrix containing bomb and block sized, intermediate volcanic fragments which comprise up to 75% of the rock. The ash tuffs are massive, fine grained, grey-green rocks. Locally they exhibit bedding. Occasionally these tuffs contain thin cherty bands at the stratigraphic top of the bed (to the north).

The northwestern corner of the mapped area is underlain predominantly by crystal tuffs. A small wedge of agglomerate is also present. The exposure of these rocks is obscured by a pink conglomerate composed of rounded clasts of various compositions (primarily granite, granodiorite, basalt) in a fine to medium grained matrix. This is interpreted as an outlier of Huronian metasedimentary rocks.

Adjacent to the fault the rocks are brecciated, sheared and highly carbonatized.

Lithology East of the Fault.

On the eastern side of the fault the units strike north to 015° and dip very steeply. From west to east the lithology is as follows:

A thin lens of brecciated, sheared and highly carbonatized rock of unknown original composition is present, parallel to the fault and also as a north-northeast trending lens, 50 metres east of the fault, straddling claims 1134042 and 1134041. These lenses may be altered intermediate flows which underlie most of the western side of the area east of the fault. These flows are aphanitic, homogranular, hard to moderately hard, medium grey-green and massive. They commonly contain small amounts of disseminated pyrite. A thin ultramafic unit is present, roughly conformable with the enclosing intermediate flows. This unit is coarse grained, dark green to black, massive to moderately foliated (north-northeast) and locally weakly magnetic. It is serpentinized. Large calcite-quartz-epidote-pyrite blebs are

present locally.

To the east of the flows, the area is underlain predominantly by mafic lapilli tuffs intercalated with less abundant ash tuffs. These rocks are massive to weakly foliated (north-northeast). The lapilli tuffs are fine grained, dark green, amphibole and chlorite bearing rocks with mafic, lapilli size fragments comprising 25-30% of the rock. The ash tuffs are similar but lacking in fragments.

Mafic to intermediate lapilli tuffs containing lenses of mafic to intermediate ash tuff, ultramafic rocks and intermediate crystal tuffs underlie the central part of the eastern block. Chlorite rich fragments are present in a dark green, amphibole bearing matrix and in a fine grained medium green matrix. The ash tuff, ultramafic rocks and crystal tuffs are similar to those previously described.

A thin band of mafic to intermediate ash and crystal tuffs underlies the western part of claim 1134039. The extent of this horizon has not been adequately determined as only one grid line was mapped in this area.

A sequence of intermediate ash tuffs, flows and mafic lapilli tuffs; mafic to intermediate lapilli tuffs, and mafic to intermediate ash tuffs underlie the eastern three quarters of claim 1134040. The characteristics of these rock types have been previously described.

GEOPHYSICS

A VLF-EM survey was conducted over six claims. The survey was conducted along N-S flagged lines with 25 metre station separation, using the Cutler, Maine station on claims L1133932, 1133933, 1134043 and 1134044. On claims L1134039 and 1134041 the survey was run on E-W flagged lines with 25 metre station separation using the Annapolis, Maryland station. The instrument used for the survey was a Crone Geophysics Limited Radem VLF EM Receiver. Specifications for the instrument and operational technique are included in Appendix I. Approximately 560 stations were recorded for a total of 14 kilometres surveyed.

Four distinct VLF conductors were located on the property, labeled S1 to S4 on the VLF Map. Conductor S1 is located in the southwest corner of the property. It trends 070° and is coincident with the geological boundary separating an area underlain predominantly by intermediate ash tuffs and one underlain predominantly by intermediate lapilli tuffs. This orientation is also parallel to the trend of numerous quartz-calcite veins containing pyrite, chalcopyrite, malachite and galena which are found to the north. The topography coincident with the conductor is low and swampy.

Conductor S2 is located in the western half of the property.

Much of the extent of the conductor is obscured by Barite Lake. The eastern half of the conductor trends 060° parallel to regional faults in the area, as does conductor S3. No surface expression of this conductor was observed during the mapping survey. Conductor S3 is parallel to and located south east of conductor S2.

Conductor S4 is located in the southeastern part of the property. It trends north-northeast and is along strike from Zone 2 (described in the Economic Geology section.) It was first located in 1976 by Getty Minerals, Ltd. who subsequently cored a diamond drill hole to investigate the conductor. Their drill log reports graphite in the core. No mineralization similar to that of Zone 2 was noted in the logs. This conductor was also located by a government Airborne Electromagnetic Survey flown in 1990. In this survey the conductor is shown to extend northward beyond the property. This conductor should be a primary target of continued exploration of the property.

ECONOMIC GEOLOGY

Two rusty weathered, silicified, pyritiferous zones, one strongly anomalous and one weakly anomalous in gold, were located, east of the fault. The largest and most anomalous zone (Zone 1) is within intermediate flows or tuffs, just south of the property boundary, in the northeastern part of the mapped area. The exposed zone is 3.5 metres in east-west dimension and 7 metres in north-south dimension. It is obscured on all sides by overburden.

Zone 2 is hosted by intermediate flows in the central part of the mapped area. It is very similar in character to Zone 1. Zone 2 consists of a number of small exposures separated by overburden. The group of exposures is 10 metres in the north-south dimension and 1-2 metres in the east-west dimension. The Ministry of Natural Resources' Airborne Electromagnetic Survey has located a conductor extending north-south over Zone 2. The same conductor was also outlined to the south of Zone 2 by the ground geophysics survey.

Other small lenses in the intermediate flow unit and angular boulders in overburden with features similar to Zones 1 and 2 have been located on claims 1134040 and 1134042.

Prospecting on claims 1133933 revealed numerous, thin (<=20 centimetres), quartz-carbonate veins strikeing 070-080° with minor amounts of malachite, chalcopyrite, galena, pyrite and barite.

Assay Results.

Thirty-eight rock samples and one humus sample were obtained for assaying. They were taken to the Swastika Lab in

Swastika, Ontario on August 31, 1990. All rock samples were fire assayed for gold and silver using 1 assay ton fusions. Six samples yielded >0.01 oz/ton gold, two of these yielded >0.1 oz/ton. The humus sample yielded 237 ppb. All anomalous gold samples were from Zone 1, from a small lens of Zone 1 type rock at 9+25N, 98+65W and from float. Zone 2 yielded gold assays of between 5 and 45 ppb. No silver assays were significant.
Eight samples were assayed for copper, one was assayed for nickel and one for lead. Copper assays up to 2340 ppm and lead assays up to 517 ppm were obtained from the quartz-carbonate veins sampled on claim 1133933. The nickel assays were not significant.

All sample information and assay results are tabulated in Appendix II.

RECOMMENDATIONS

The northeastern two claims (1134042 and 1134040), which contain Zones 1 and 2, and the newly staked claims to the north should be explored in detail. A cut grid is required on the claims and detailed geochemical and geophysical surveys should be conducted to identify additional zones of interest. The known showings should be stripped of overburden to determine their extent and orientation. Systematic rock sampling of the zones should then be undertaken.

The geology and geophysics surveys commenced in 1990 (including MAG) should be completed over the eight claims.

The additional six claims staked to the north should be mapped and explored by VLF and MAG techniques.

REFERENCES

Bryant, Gary.
1976: Report on Shining Tree Project, Arthur Lake Group. Getty Mines, Limited.

Carter, M.W.
1987: Geology of the Shining Tree Area, Districts of Sudbury and Timiskaming: Ontario Geological Survey Report 240, 48p. Accompanied by Map 2510, scale 1:50000.

1983: Geology of Natal and Knight Townships, Districts of Sudbury and Timmiskaming, Ontario Geological Survey, Report 225, 74p. Accompanied by Map 2465, scale 1:31,680.

CERTIFICATE OF QUALIFICATIONS

I, Jennifer A. Clark, of #705 - 345 Dufferin Street, Toronto, hereby certify that:

1. I graduated with a B.Sc. from the University of Toronto, in 1983.

2. I have been employed as a geologist for seven years.

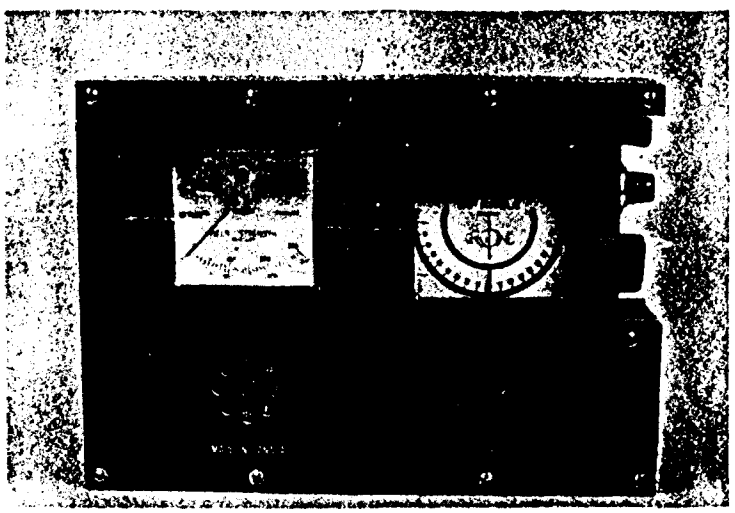
3. I am a fellow of the Geological Association of Canada.

Date: May 15, 1991

Signature: Jennifer A. Clark

APPENDIX I

CRONE GEOPHYSICS LIMITED
RADEM VLF EM RECEIVER



An EM receiver measuring the FIELD STRENGTH, DIP ANGLE and QUADRATURE components of the VLF communications stations.

This is a rugged, simple to operate, ONE MAN EM unit. It can be used without line cutting and is thus ideally suited for GROUND LOCATION OF AIRBORNE CONDUCTORS and RECONNAISANCE SURVEYS of MINERAL SHOWINGS. This instrument utilizes higher than normal EM frequencies and is capable of detecting poorly conductive sulphide deposits and fault zones. It accurately isolates BANDED CONDUCTORS and operates through areas of HIGH POWERLINE NOISE. The method is capable of deep penetration but due to the high frequency used its penetration is limited in areas of clay and conductive overburden.

The DIP ANGLE measurement detects a conductor from a considerable distance and is used primarily for locating conductors. The FIELD STRENGTH measurement is used to define the shape and attitude of the conductor.

- Instrument Sales, Rental and Repair Services
- Contract Survey Services
- Consulting Services
- Computer Plotting and Processing Services

SPECIFICATIONS*

SOURCE OF PRIMARY FIELD: VLF Communications Stations 1 to 25 KHz

NUMBER OF STATIONS: 7 Switch Selectable

STATIONS AVAILABLE: The Seven Stations May Be Selected From:

	CODE	STATION & LOCATION	CALL SIGN	FREQUENCY
Standard	CM	Cutler, Maine	NAA	24.0 KHz
"	SW	Seattle, Washington	NLK	24.8 KHz
"	AM	Annapolis, Maryland	NSS	21.4 KHz
"	H	Laulualei, Hawaii	NPM	23.4 KHz
"	BOF	Bordeaux, Frace	NWU	15.1 KHz
"	E	Rugby, England	GBR	16.0 KHz
Optional	MS	Moscow, Russia	UMS	17.1 KHz
"	OD	Odessa (Black Sea)	EWB	15.6 KHz
"	NC	Exmouth, Australia	NWC	22.3 KHz
"	HN	Helgelend, Norway	JXZ	17.6 KHz
"	YJ	Yosamai, Japan	NDT	17.4 KHz
"	TJ	Tokyo, Japan	JG2AR	20.0 KHz
"	BA	Buenos Aires, Argentina		23.6 KHz

CHECK THAT STATION IS TRANSMITTING: Audible signal from speaker.

PARAMETERS MEASURED:

(1) DIP ANGLE in degrees of the magnetic field component, from the horizontal, of the major axis of the polarization ellipse. Detected by a minimum on the field strength meter and read from an inclinometer with a range of ±½°.

(2) FIELD STRENGTH (total or horizontal) of the magnetic component of the VLF field, (amplitude of the major axis of the polarization ellipse). Measured as a percent of normal field strength established at a base station. Accuracy ±2% dependent on signal. Meter has two ranges: 0-300% and 0-600%.

(3) QUADRATURE component of the magnetic field, perpendicular in direction to the resultant field, as a percent of the normal field strength, (amplitude of the minor axis of the polarization ellipse). This is the minimum reading of the Field Strength meter obtained when measuring the dip angle. Accuracy ±2%.

OPERATING TEMPERATURE RANGE: −40°C to 50°C (−40°F to 120°F)

DIMENSIONS: 9 cm x 19 cm x 27 cm (3½" x 7½" x 10½")

SHIPPING DIMENSIONS: 30 cm x 14 cm x 36 cm (11⅞" x 5½" x 14")

WEIGHT: 2.7 kg (6 lbs)

SHIPPING WEIGHT: 6.0 kg (13 lbs)

BATTERIES: 2 of 9 volt
Average Life Expectancy
20 Hours for Continuous Operation

* Specifications subject to change without notice*

CRONE GEOPHYSICS LIMITED
3607 WOLFEDALE ROAD, MISSISSAUGA, ONTARIO, CANADA L5C 1V8
TELEPHONE: (416) 270-0096 CABLE: CRONGEO, TORONTO TELEX: 06-961260.
Australian Branch: 344 Newbridge Road, MOOREBANK, N.S.W. 2170 Telephone: (02) 602-0937, Telex: 71-22922

INSTRUCTIONS FOR OPERATION OF THE RADEM VLF-EM RECEIVER

(1) Transmitter Stations

The VLF Communication Broadcast stations are positioned throughout the world. At present, 13 of these stations broadcast steadily except for maintenance periods usually of 1/2 to 1/3 days per week. The RADEM receives any 7 of these stations with selection by means of a switch. The usable range of the stations varies widely with power and transmission conditions but is usually between 1000 and 5000 miles. Two types of signals are broadcast "keyed" (on and off) and "frequency shift" (FM).

A station should be selected that is located in the same direction as the regional strike. For example, if the geological strike is east-west then a station located east or west of the operator should be used. If in doubt of the geological strike two orthogonal stations should be read.

(2) Field Measurements

(a) Dip Angle of Resultant Field

This is the angle of inclination, measured from the horizontal in degrees, of the direction of the resultant VLF field. The VLF field is normally horizontal (0° dip). The dip angle measurement is independant of the strength of the field and the gain setting of the RADEM receiver. When plotted on a profile the dip angles usually form a cross-over pattern above the conductor as with the standard vertical loop EM method.

To measure the dip angle the RADEM is first held with the instrument face horizontal and rotated until a null is obtained (visual minimum on the field strength meter and audio null). This aligns the RADEM with the

direction of the VLF field. The RADEM is then held vertically and tilted from right to left until another null is obtained. The instrument is held steady in this null position and the dip angle read from the inclinometer. Note that the arrow in CR⊕NE points towards the conductor if the arrow points north the dip angle is recorded as say 10°N. In making the dip angle measurement the Normal-K switch must be in the NORM position.

(b) Out-Of-Phase Measurement
(Usually Not Measured)

The secondary field from a ground conductor often is not in the same phase as the primary field, therefore the resultant field will have an out-of-phase component.

To measure the out-of-phase component as a percent of the normal primary field the volume control of the amplifier must be set up as a standard. This is achieved at a base station in a normal area. The Field Strength range switch is placed in the 0 - 300 position. The RADEM held with the face horizontal and the body rotated until a maximum Field Strength reading is obtained. In this position the Volume control is adjusted until the meter reads "100". The Volume control is left at this setting until the base station is read again usually one to several hours later. The Out-Of-Phase reading is the minimum position of the Field Strength meter when the dip angle of the resultant field is being measured. It is read at the same time as the dip angle is being read with the RADEM in the vertical null position.

The Out-Of-Phase measurement is sensitive to a lower order of conductivity than the dip angle measurement. For this reason it is often not recorded unless very poor conductors are being sought.

(c) Horizontal Component of the Field Strength

This is simply the strength of the field in the horizontal plane. It is the maximum reading obtained from the Field Strength meter when the instrument is rotated in the horizontal plane. It is therefore at right angles to the null position. It is usually read after the dip angle measurement simply by holding the RADEM horizontal, the CR⊕NE arrow pointing at right angles to the operator, and adjusting position for maximum reading in the horizontal plane.

If the signal is keyed the Normal-K switch is moved to the "K" position for the field strength reading. It must be returned to the normal position for dip angle measurement.

The field strength of VLF stations drifts with time. This drift is particularly severe during sunrise and sunset periods. A base station should be established in a normal area and the RADEM adjusted to a Horizontal Field Strength of "100" on the "0 - 300" scale by means of the volume control pot. This base or subsidiary base station should be read every one to two hours as in a magnetic survey.

Fraser's Method

Reference: Geophysics, Volume 34, No. 6, December 1969. "Contouring of VLF-EM Data"

This is a simple operation on the dip angle readings that more clearly defines anomalous areas. It requires a consistent reading interval usually 50' or 100'. It produces a survey in which the conductors are contoured much the same as a Horizontal Field Strength survey although lacking the detail possible with the Field Strength measurement.

Example of Field Sheet

Station	Out-Of-Phase-%	Dip Angle Degrees	Reading	Field Strength Time	Drift	Corr.	Remark
10N-Base	2	0	100	9:00	0	100	
10+50N	2	0	100	:02	0	100	Lake
11N	0	2N	99	:04	-1	98	Lake
11+50N	0	6N	101	:06	-1	100	
12N	0	12N	102	:08	-2	100	Road
12+50N	4	22N	118	:10	-2	116	
13N	6	20N	185	:12	-2	183	
13+50N	6	8N	263	:14	-3	260	X' Over
14N	0	1S	247	:17	-3	244	
14+50N	0	12S	164	:20	-4	160	
/							
10N-Base			114	10:10	-14	100	

tion Shut-Down Timetable, March 1982.	Eastern S. Time
CUTLER, MAINE 24.0K Hz - Every Monday 1200 to 2000 UT (If holiday falls on Monday, maintenance will be performed on preceding Friday.)	7 am to 3 pm
SEATTLE, WASHINGTON 24.8K Hz - Thursday 1600 to 2400 UT (During Daylight saving time 1500 to 2300 UT)	11 am to 7 pm
LAULUALEI, HAWAII 23.4K Hz - Maintenance Wednesday and Thursday 1700 to 0500 UT.	12 am to 12 pm
ANNAPOLIS, MARYLAND 21.4K Hz - Every Tuesday 1200 to 2000 UT.	7 am to 3 pm
NORTH WEST CAPE, AUSTRALIA 22.3 K Hz - Every Monday 0000 to 0800 UT.	7 pm to 3 pm
RUGBY, ENGLAND 16.0K Hz - Everyday, 1300 to 1400 UT.	8 am to 9 am
YOSAMI, JAPAN 17.4K Hz - First Thursday and Friday of month 2300 to 0900 UT, every other Thursday and Friday 2300 to 0700 UT.	6 pm to 1 am

List of Available Stations on the RADEM unit

Code Letter	Station and Location	Frequency	Call Sign
CM	Cutler, Maine	24.0K Hz	NAA
SW	Seattle, Washington	24.8K Hz	NLK
AM	Annapolis, Maryland	21.4K Hz	NSS
H	Laulualei, Hawaii	23.4K Hz	NPM
BOF	Bordeaux, France	15.1K Hz	NWU
E	Rugby, England	16.0K Hz	GBR
MS	Moscow, Russia	17.1K Hz	UMS
OD	Odessa (Black Sea)	15.6K Hz	EWB
NC	Exmouth, Australia	22.3K Hz	NWC
HN	Helgelend, Norway	17.6K Hz	JXZ
YJ	Yosami, Japan	17.4K Hz	NDT
TJ	Tokyo, Japan	20.0K Hz	JG2AR
BA	Buenos Aires, Argentina	23.6K Hz	...

Temperature Effect

Temperature drift may cause the field strength meter to null well below the zero mark. This should be corrected by the screw adjustment below the "Normal" switch on the front panel. Adjust with the volume control pot at 0.

Batteries: Two of #216 Eveready 9 Volt - Life: 20 Hours continuous.

crt. 5/4/82

APPENDIX II. ASSAY RESULTS AND CERTIFICATES

SAMPLE NUMBER (map)	SAMPLE NUMBER (tag)	NORTHING	EASTING	ROCK TYPE	AU 1 (ppb)	AU 2 (ppb)	AU 3 (ppb)	AG (ppm)	CU (ppm)	NI (ppm)	PB (ppm)
105	125101	6+75	95+40	2A, py Zone 1	2			0.1			
104	125102	7+50	98+65	1a/5a w/ ep,asb,qtz	0			0.1		47	
102	125103	7+25	97+10	2a float	7			0.1			
094	125104	7+12	97+90	2a, py Zone 2	22			0.3			
095	125105	7+10	97+90	silicified 2a,py,Zn2	45			0.3			
096	125106	7+08	97+90	silicified 2a,py,Zn2	33			0.4			
097	125107	6+90	97+90	silicified 2a,py,Zn2	5			0.1			
092	125108	8+85	98+40	qzvn in 2a, py	19			0.1			
091	125109	9+25	98+65	rusty dacite, py	430	617		1.6			
089	125110	8+70	99+20	2a, ca-qzvn	245			0.1			
088	125111	8+65	99+35	rusty 2a, py	2			0.1			
075	125112	9+50	95+50	silicified 2a,py,Zn1	720			0.1			
110	125142	9+50	95+50	humus	237	273		0.2			
111	125114	9+50	95+50	silicified 2a,py,Zn1	5554	4937	6274	1.3			
112	125115	9+50	95+32	silicified 2a,py,Zn1	58			0.1			
113	125116	9+50	95+50	silicified 2a,py,Zn1	2290	2194		0.3			
076	125117	7+10	97+90	silicified 2a,py,Zn1	69			0.5			
072	125118	9+00	109+00	Dacite/lap. tuff, py	0			0.1			
071	125119	4+30	109+00	qzvn, cp, py, mal	7			0.1			
058	125120	5+00	100+80	fault bx. 1d	0			0.1			
074	125122	9+15	99+80	qzvn	170			0.1			
114	125123	2+00	95+00	barite vn, cp, mal	0			0.1			
115	125124	6+80	107+50	qzvn in 2d	0			0.1			
042	125125	2+50	102+20	chrt,cp,py	0			0.1	7		
051	125126	5+80	94+96	rusty bldr	549	413		0.1			
009	125127	4+85	104+00	qzvn	2			0.1			
116	125128	3+60	106+80	sheared, rusty	5			0.1			
117	125129	2+65	109+00	qzvn	9			0.1			
118	125130	4+49	108+95	CaBaQzvn, ga,cp,py,m	0			0.1	348		517
119	125131	4+49	10900	qzvn, py, cp	0			0.1	102		
120	125132	4+45	109+00	CaQzvn, cp, py, mal	5			0.2	2340		
124	125137	4+60	98+50	fault bx. 1d	12			0.1			
125	125138	6+75	97+88	1d, py	0			0.1			
127	125139	7+80	94+42	rusty 1c-2g	9			0.1			
128	125140	7+90	94+70	qzvn in andesite, py	39			0.3			
129	125141	5+85	94+13	rusty 2a	384	617		0.3			
131	125134	2+00	95+00	1b-2d	26			0.3	76		
132	125135	1+40	95+20	2g	2			0.1			
042a	125136	NE Quadrant-bldr		rusty chert	10			1.1	783		

#126.28

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken L 1133932 + L1133933 NATAL TWP

Total Number of Samples 7

Type of Sample Rock
(Nature of Material)

Average Sample Weight 1 kg

Method of Collection GRAB

Soil Horizon Sampled n/a

Horizon Development n/a

Sample Depth surface

Terrain outcrop

Drainage Development Good

Estimated Range of Overburden Thickness 0

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

Mesh size of fraction used for analysis
± 100 mesh

General

ANALYTICAL METHODS

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

(Cu) (Pb) Zn, Ni, Co, (Ag) Mo, As, (circle) Au ppb.

Others Au

Field Analysis (_____ tests)

Extraction Method

Analytical Method

Reagents Used

Field Laboratory Analysis

No. (_____ tests)

Extraction Method

Analytical Method

Reagents Used

Commercial Laboratory (7 rock tests)

Name of Laboratory SWASTIKA

Extraction Method

Analytical Method see below

Reagents Used

General

Au - Fire Assay Atomic Absorbtion
Cu } HCl & nitric acid
Pb } Atomic Absorbtion
Ag } HCl & aqua regia, A.A.

Jennifer A. Clark

#578.72

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken L. 1134040, 1134042, 1134044, 1134043, 1134039 NATAL TWP.

Total Number of Samples 32
Type of Sample Rock (Nature of Material)
Average Sample Weight 1 Kg
Method of Collection GRAB

Soil Horizon Sampled n/a
Horizon Development n/a
Sample Depth 0m
Terrain outcrop

Drainage Development good
Estimated Range of Overburden Thickness 0

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 Au (ppb)

Field Analysis (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Field Laboratory Analysis
No. (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Commercial Laboratory (~~SWASTIKA~~ 32 ROCK tests)
Name of Laboratory SWASTIKA
Extraction Method
Analytical Method see below
Reagents Used

General
Au - Fire Assay Atomic Absorbtion
Cu } HCl + nitric acid
Pb } A.A.
Ni }
Ag - HCl + aqua regia, A.A.

Jennifer A. Clark

Swastika Laboratories
A Division of Assayers Corporation Ltd.
Assaying - Consulting - Representation
Established 1928

Geochemical Analysis Certificate

0W-1323-RG1

Company: J. CLARK GEOLOGICAL SERVICES
Project:
Attn: JENNIFER CLARK

Date: SEP-13-90
Copy 1. #705-345 Dufferin St, Toronto M6K 3G1

We hereby certify the following Geochemical Analysis of 40 ROCK/HUMUS samples submitted AUG-31-90 by J. CLARK.

Sample Number	MAP Number	Au ppb	Au check ppb	Au 2nd ppb	Ag ppm	Cu ppm	Ni ppm	Pb ppm
125101	105	2			0.1			
125102	104	Nil			0.1		47	
125103	102	7			0.1			
125104	094	22			0.3			
125105	095	45			0.3			
125106	096	33			0.4			
125107	097	5			0.1			
125108	092	19			0.1			
125109	091	430	617		1.6			
125110	089	245			0.1			
125111	088	2			0.1			
125112	075	720			0.1			
125114	111	5554	4937	6274	1.3			
125115	112	58			0.1			
125116	113	2290	2194		0.3			
125117	076	69			0.5			
125118	072	Nil			0.1			
125119	071	7			0.1	258		
125120	058	Nil			0.1			
125121	040	Nil			0.1		not included	
125122	074	170			0.1			
125123	114	Nil			0.1	625		
125124	115	Nil			0.1			
125125	042	Nil			0.1	7		
125126	051	549	413		0.1			
125127	009	2			0.1			
125128	116	5			0.1			
125129	117	9			0.1			
125130	118	Nil			0.1	348		517
125131	119	Nil			0.1	102		

Au was determined using 1 AT fusions

Certified by G. Lebel

G. Lebel / Manager

Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

0W-1323-RG1

Company: J. CLARK GEOLOGICAL SERVICES

Date: SEP-13-90

Project:

Copy 1. #705-345 Dufferin St, Toronto M6K 3G1

Attn: JENNIFER CLARK

We hereby certify the following Geochemical Analysis of 40 ROCK/HUMUS samples submitted AUG-31-90 by J. CLARK.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	Ag ppm	Cu ppm	Ni ppm	Pb ppm
125132 /20	5			0.2	2340		
125134 /21	26			0.3	76		
125135 /32	2			0.1			
125136 042	10			1.1	783		
125137 /24	12			0.1			
125138 /25	Nil			0.1			
125139 /27	9			0.1			
125140 /26	39			0.3			
125141 /29	384	617		0.3			
125142 /10	237	273		0.2			

Au was determined using 1 AT fusions

Certified by G. Lebel / Manager

P.O. Box 10, Swastika, Ontario P0K 1T0

Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

0W-1323-RG1

Company: J. CLARK GEOLOGICAL SERVICES
Project:
Attn: JENNIFER CLARK

Date: SEP-13-90
Copy 1. #705-345 Dufferin St, Toronto M6K 3G1

We hereby certify the following Geochemical Analysis of 40 ROCK/HUMUS samples submitted AUG-31-90 by J. CLARK.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	Ag ppm	Cu ppm	Ni ppm	Pb ppm
125101	2			0.1			
125102	Nil			0.1		47	
125103	7			0.1			
125104	22			0.3			
125105	45			0.3			
125106	33			0.4			
125107	5			0.1			
125108	19			0.1			
125109	430	617		1.6			
125110	245			0.1			
125111	2			0.1			
125112	720			0.1			
125114	5554	4937	6274	1.3			
125115	58			0.1			
125116	2290	2194		0.3			
125117	69			0.5			
125118	Nil			0.1			
125119	7			0.1	258		
125120	Nil			0.1			
125121	Nil			0.1			
125122	170			0.1			
125123	Nil			0.1	625		
125124	Nil			0.1			
125125	Nil			0.1	7		
125126	549	413		0.1			
125127	2			0.1			
125128	5			0.1			
125129	9			0.1			
125130	Nil			0.1	348		517
125131	Nil			0.1	102		

Au was determined using 1 AT fusions

Certified by G. Lebel

G. Lebel / Manager

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

Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

0W-1323-RG1

Company: J. CLARK GEOLOGICAL SERVICES
Project:
Attn: JENNIFER CLARK

Date: SEP-13-90
Copy 1. #705-345 Dufferin St, Toronto M6K 3G1

We hereby certify the following Geochemical Analysis of 40 ROCK/HUMUS samples submitted AUG-31-90 by J. CLARK.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	Ag ppm	Cu ppm	Ni ppm	Pb ppm
125132	5			0.2	2340		
125134	26			0.3	76		
125135	2			0.1			
125136	10			1.1	783		
125137	12			0.1			
125138	Nil			0.1			
125139	9			0.1			
125140	39			0.3			
125141	384	617		0.3			
125142	237	273		0.2			

Invoice 23135

E.J. CLARK OR
JENNIFER A. CLARK

Sept 30 1990 629

PAY TO THE ORDER OF Swastika Laboratories $ 725.50

Seven hundred, twenty-three 50/100 DOLLARS

THE TORONTO-DOMINION BANK
TORONTO DOMINION CENTRE BRANCH
55 KING ST. W. & BAY ST.
TORONTO, ONTARIO M5K 1A2

Jennifer A. Clark

⑈629⑈ ⑆102121004⑆ 0691⑈022245 2⑈ ⑈00000?2350⑈

104

Au was determined using 1 AT fusions

Certified by G. Lebel

G. Lebel / Manager

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

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

0W-1299-RG1

Company: ED. CLARK
Project:
Attn:

Date: SEP-13-90
Copy 1. #705--345 Dufferin St. Toronto M6K 3G1

We hereby certify the following Geochemical Analysis of 18 ROCK samples submitted AUG-31-90 by .

Sample Number	Au ppb	Au check ppb	Ag ppm	Co ppm	Cu ppm	Ni ppm
125151	Nil		0.1		66	
125152	Nil		0.1		141	
125153	14		0.2		201	
125154	26	19	0.1		69	
125155	5		0.1		260	
125156	3		0.1		288	
125157	12		0.5		1240	
125158	22		0.1		273	
125159	5		1.1		3360	
125160	34	39	2.3		10800	
125161	Nil		0.1		100	
125162	36		0.1		65	
125163	34		0.3		2340	
125164	7		0.1		201	
125165	5		0.4		1080	
125166	127		1.2		15350	
125167	Nil		2.2	501	3540	113
125168	12		0.1		43	

Invoice 23136

E.J. CLARK OR
JENNIFER A. CLARK

628

Sept 30 19 90

PAY TO THE ORDER OF Swastika Laboratories $ 380.50

Three hundred, eighty 50/100 DOLLARS

THE TORONTO-DOMINION BANK
TORONTO DOMINION CENTRE BRANCH
55 KING ST. W. & BAY ST.
TORONTO, ONTARIO M5K 1A2

Jennifer A. Clark

⑈628⑈ ⑆102121004⑆ 0691⑈022452⑈ ⑈000038050⑈

104

Certified by G. Lebel / Manager

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

Ministry of Northern Development and Mines

Ontario

M.I

Mining Act

DOCUMENT NO. W9108.00109

41P11NE0033 2.14113 NATAL

and Lands Branch.

900

Report of Work
(Expenditures, Subsection 77(19))

Type of Work Performed	Mining Division	Township or Area
ROCK SAMPLING & ASSAYING	LARDER LK	NATAL TWP.

Recorded Holder	Prospector's Licence No.
MICHAEL J. PERKINS	A. 49379
Address	**Telephone No.**
514 CRAWFORD ST., TORONTO, ONT. ~~M~~ M6G 3J8	(416) 534-6940
Work Performed By	
J. A. CLARK	2.14113
Name and Address of Author (of Submission)	**Date When Work was Performed**
JENNIFER A. CLARK, #705-345 DUFFERIN ST. TORONTO, ONT. M6K 3G1	From: 27 07 90 To: 30 08 90 (Day / Mo. / Yr.)

All the work was performed on Mining Claim(s): Indicate no. of days performed on each claim. *See Note No. 1 on reverse side

Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
1133933	7.2	1133932	1.2								

Instructions
Total days credits may be distributed at claim holder's choice. Enter number of days credits per claim in the expenditure days credit column (below).

Calculation of Expenditure Days Credits: Total Expenditures $ 126.28 ÷ 15 = Total Days Credits 8.4

Total Number of Mining Claims Covered by this Report of Work: 2

Mining Claims (List in numerical sequence). If space is insufficient, attach schedules with required information

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

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Total Number of Days Performed	Total Number of Days Claimed	Total Number of Days to be Claimed at a Future Date
8.4	0	8.4

Certification of Beneficial Interest *See Note No. 2 on reverse side

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.

Date: MARCH 7/91

Recorded Holder or Agent (Signature): Jennifer A. Clark

Certification Verifying Report of Work

I 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 and the annexed report is true.

Name and Address of Person Certifying: JENNIFER A. CLARK - ADDRESS AS ABOVE

Telephone No.: (416) 531-0974

Date: MARCH 7/91

Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
0	Mar. 15/91	
	Date Approved as Recorded	**Provincial Manager, Mining Lands**
	Mar 24/91	Ron C Gashinski

Received Stamp: RECEIVED LARDER LAKE MINING DIVISION MAR 15 1991 TIME 10.59 am

0780 (80/06)

Ministry of Northern Development and Mines

Ontario

DOCUMENT W9108.00114

WORK

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 2.14113

(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s)	Mining Division	Township or Area
GEOPHYSICS - ELECTROMAG	LARDER LK.	NATAL TWP.

Recorded Holder(s)	Prospector's Licence No
MICHAEL J. PERKINS	A.49379

Address	Telephone No
51H CRAWFORD STREET, TORONTO, ONTARIO M6G 3J8	534-6940 (416)

Survey Company
T.A. CLARK

Name and Address of Author (of Geo-Technical Report)	Date of Survey (from & to)
JENNIFER CLARK, #705-345 DUFFERIN ST. TORONTO, ONT. M6K-3G1	25 / 7 / 90 (Day / Mo / Yr) 04 / 10 / 90 (Day / Mo / Yr)

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
	Geophysical - Magnetometer	
For each additional survey using the same grid: Enter 20 days (for each)	Geophysical - Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	Days per Claim
	Geophysical - Magnetometer	
	Geophysical - Other	
	Geological	
	Geochemical	
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: March 7/91 — Recorded Holder or Agent (Signature): Jennifer A. Clark

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
L.	1133932				
	1133933				

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MINING LANDS SECTION

Total number of mining claims covered by this report of work: 2

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: JENNIFER A. CLARK. ADDRESS AS ABOVE

Telephone No: (416) 531-0974 — Date: March 7/91 — Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
80	March 15/91	
	Date Approved as Recorded	Provincial Manager, Mining Lands
	May 24/91	Ron C. Gashinski

Received Stamp: RECEIVED LARDER LAKE MINING DIVISION MAR 15 1991 TIME 10.59 am

1362 (89/06)

Ministry of Northern Development and Mines

Ontario

Mining Act

DOCUMENT No. 9108. 00116

(WORK)

Report of Work 2.14113

(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
GEOPHYSICS - ELECTROMAG.	LARDER LK.	NATAL TWP.

Recorded Holder(s)	Prospector's Licence No.
EDWARD J. CLARK	A. 50680

Address	Telephone No.
#705-345 DUFFERIN STREET, TORONTO, ONTARIO M6R 3G1	(416) 531-0974

Survey Company: J.A. CLARK

Name and Address of Author (of Geo-Technical Report): JENNIFER CLARK - ADDRESS SAME AS ABOVE

Date of Survey (from & to): 25 7 90 (Day Mo Yr) — 04 10 90

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
	Geophysical - Magnetometer	
For each additional survey: using the same grid Enter 20 days (for each)	Geophysical - Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - 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: March 7/91 — Recorded Holder or Agent (Signature): E.J. Clark

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
L	1134039				
L	1134041				
L	1134043				
L	1134044				

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MINING LANDS SECTION

Total number of mining claims covered by this report of work: 4

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: JENNIFER CLARK (ADDRESS AS ABOVE)

Telephone No.: (416) 531-0974 — Date: March 7/91 — Certified By (Signature): Jennifer M. Clark

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MINING DIVISION
MAR 15 1991
TIME 10.59 am

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
160	March 15/91	
	Date Approved as Recorded: May 24/91	Provincial Manager, Mining Lands: Ron C Gashinski

1362 (89/06)

Ministry of Northern Development and Mines

Ontario

Mining Act

(WORK)

DOCUMENT No. 9108. 00115

Report of Work 2.14113

(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	LARDER LAKE	NATAL TWP.

Recorded Holder(s)	Prospector's Licence No.
M. J. PERKINS	A. 49379

Address	Telephone No.
514 CRAWFORD ST. TORONTO, ONT. M6G 3J8	534-6940 (416)

Survey Company: J. CLARK

Name and Address of Author (of Geo-Technical Report): JENNIFER A. CLARK - #705-345 DUFFERIN ST. TORONTO M6K 3G1

Date of Survey (from & to): 27 Day 07 Mo 90 Yr | 30 Day 08 Mo 90 Yr

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	
	Geophysical - Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Other	
	Geological	20
	Geochemical	

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

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
L	1133932				

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MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 1

Date: MARCH 7/91 Recorded Holder or Agent (Signature): Jennifer A. Clark

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: JENNIFER A. CLARK - ADDRESS AS ABOVE

Telephone No. (416) 531-0974 Date: MARCH 7/91 Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
20	March 15/91	
	Date Approved as Recorded: May 24/91	Provincial Manager, Mining Lands

Received Stamp: RECEIVED LARDER LAKE MINING DIVISION MAR 15 1991 TIME 10.59 am

1362 (89/06)

Ministry of Northern Development and Mines
Ontario

M.L

DOCUMENT No.
W9108. 00117

WORK

Report of Work 2.14113
(Geophysical, Geological and Geochemical Surveys)

Mining Act

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	LARDER LK.	NATAL TWP.

Recorded Holder(s)	Prospector's Licence No.
EDWARD J. CLARK	A.50680

Address	Telephone No.
#705-345 DUFFERIN STREET, TORONTO, ONT. M6K 3G1	(416) 531-0974

Survey Company
J.A. CLARK

Name and Address of Author (of Geo-Technical Report)	Date of Survey (from & to)
JENNIFER CLARK - ADDRESS AS ABOVE	27 07 90 – 30 08 90 (Day Mo Yr / Day Mo Yr)

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions	Geophysical	
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey using the same grid: Enter 20 days (for each)	- Other	
	Geological	40
	Geochemical	
Man Days	Geophysical	
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		
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)
March 7/91	E J Clark

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
L.	1134040				
	1134042				

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MINING LANDS SECTION

Total number of mining claims covered by this report of work. 2

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
JENNIFER CLARK - ADDRESS AS ABOVE

Telephone No.	Date	Certified By (Signature)
(416) 531-0974	March 7/91	Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
80	March 15/91	[signature]
	Date Approved as Recorded	Provincial Manager, Mining Lands
	May 24/91	Ron C Gashinski

Received Stamp
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LARDER LAKE MINING DIVISION
MAR 15 1991
TIME 10.59 am

1362 (89 06)

Ministry of Northern Development and Mines
Ontario

APR. 15 ~~MAY 14~~

DOCUMENT No. W9108. 00118

Mining Act

Report of Work
(Expenditures, Subsection 77(19))

Instructions
- Please type or print.
- Refer to Subsection 77(19), the Mining Act for assessment work requirements and maximum credits allowed under this Subsection.
- Technical Reports, maps and proof of expenditures in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Type of Work Performed	Mining Division	Township or Area
ROCK SAMPLING & ASSAYING	LARDER LK	NATAL TOWNSHIP

Recorded Holder: EDWARD J. CLARK
Prospector's Licence No.: H. 50680

Address: #705-345 DUFFERIN ST., TORONTO, ONT. M6K 3G1
Telephone No.: (416) 531-0974

Work Performed By: J. A. CLARK

2.14113

Name and Address of Author (of Submission): JENNIFER A. CLARK, ADDRESS AS ABOVE

Date When Work was Performed: From: 27 07 90 To: 30 08 90 (Day Mo. Yr.)

All the work was performed on Mining Claim(s): indicate no. of days performed on each claim. *See Note No. 1 on reverse side

Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
1134040	14.43	1134042	15.63	1134044	2.41	1134043	2.41
1134039	3.61						

Instructions
Total days credits may be distributed at claim holder's choice. Enter number of days credits per claim in the expenditure days credit column (below).

Calculation of Expenditure Days Credits

Total Expenditures $ 578.72 ÷ 15 = Total Days Credits 38.5

Total Number of Mining Claims Covered by this Report of Work: 5

Mining Claims (List in numerical sequence). If space is insufficient, attach schedules with required information

Mining Claim Prefix	Number	Expend. Days Cr.	Mining Claim Prefix	Number	Expend. Days Cr.	Mining Claim Prefix	Number	Expend. Days Cr.	Mining Claim Prefix	Number	Expend. Days Cr.

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MINING LANDS SECTION

Total Number of Days Performed	Total Number of Days Claimed	Total Number of Days to be Claimed at a Future Date
38.5	0	38.5

Certification of Beneficial Interest *See Note No. 2 on reverse side

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.

Date: MARCH 7/91
Recorded Holder or Agent (Signature): E J Clark

Certification Verifying Report of Work

I 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 and the annexed report is true.

Name and Address of Person Certifying: JENNIFER A. CLARK - ADDRESS AS ABOVE

Telephone No.: (416) 531-0974
Date: MARCH 7/91
Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
0	March 15/91	[signature]
Banked 38.5	Date Approved as Recorded: Days 24/9/10	Provincial Manager, Mining Lands: [signature]

Received Stamp
RECEIVED
LARDER LAKE
MINING DIVISION
MAR 15 1991
TIME 10.59 am

Ministry of Northern Development and Mines

Ontario

(WORK)

DOCUMENT No. W9108.00119

M-L

Report of Work 2.14113

Mining Act

(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	LARDER LAKE	NATAL TWP.

Recorded Holder(s)	Prospector's Licence No.
EDWARD J. CLARK	A.50680
Address	**Telephone No.**
#705 - 345 DUFFERIN STREET, TORONTO, ONT. M6K 3G1	(416) 531-0974
Survey Company	
J.A. CLARK	
Name and Address of Author (of Geo-Technical Report)	**Date of Survey (from & to)** Day Mo. Yr. / Day Mo. Yr.
JENNIFER A. CLARK - ADDRESS AS ABOVE	27 07 90 / 30 08 90

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	
	Geophysical - Magnetometer	
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
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - 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	Recorded Holder or Agent (Signature)
March 7/91	E.J. Clark

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
L	1134043				

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MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 1

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

JENNIFER A. CLARK - ADDRESS AS ABOVE

Telephone No	Date	Certified By (Signature)
(416) 531-0974	MARCH 7/91	Jennifer A. Clark

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Total Days Cr. Recorded	Date Recorded	Mining Recorder
20	March 15/91	
	Date Approved as Recorded	Provincial Manager, Mining Lands
	May 24/91	

Received Stamp

RECEIVED
LARDER LAKE
MINING DIVISION
MAR 15 1991
TIME 10:59 am

1362 (89/06)

Ministry of Northern Development Mines
Ontario

DOCUMENT No. W9108.00120

APR. 19 ~~MAY 15~~

Instructions
- Please type or print.
- Refer to Subsection 77(19), the Mining Act for assessment work requirements and maximum credits allowed under this Subsection.
- Technical Reports, maps and proof of expenditures in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

ML

Mining Act — Report of Work
(Expenditures, Subsection 77(19))

Type of Work Performed	Mining Division	Township or Area
Assaying - rock samples	LARDER	NATAL -

Recorded Holder	Prospector's Licence No.
EJ Clark	A50680

Address	Telephone No.
# 705 - 345 Dufferin St Toronto M6K 3G1	416-531-0974

Work Performed By: EJ Clark 2.18113 Day 25 mo 7

Name and Address of Author (of Submission)	Date When Work was Performed
EJ Clark 25/7/90	From: Day 25 Mo 7 Yr 90 (EJC) To: Day 2 Mo 10 Yr 90

All the work was performed on Mining Claim(s): Indicate no. of days performed on each claim. *See Note No. 1 on reverse side

Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
1134045	254										

Instructions
Total days credits may be distributed at claim holder's choice. Enter number of days credits per claim in the expenditure days credit column (below).

Calculation of Expenditure Days Credits: Total Expenditures $ 380.50 ÷ 15 = Total Days Credits 254

Total Number of Mining Claims Covered by this Report of Work: 8

Mining Claims (List in numerical sequence). If space is insufficient, attach schedules with required information

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

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MINING LANDS SECTION

Total Number of Days Performed	Total Number of Days Claimed	Total Number of Days to be Claimed at a Future Date
25.4	0	25.4

Certification of Beneficial Interest *See Note No. 2 on reverse side

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
	Feb 27/91	EJ Clark

Certification Verifying Report of Work

I 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 and the annexed report is true.

Name and Address of Person Certifying	Telephone No.	Date	Certified By (Signature)
Ed Clark (see above)			EJ Clark.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
0	March 14/91	
Bonded 254	Date Approved as Recorded: Mar. 24/91	Provincial Manager, Mining Lands: Tom C Gashinski

Received Stamp: RECEIVED LARDER LAKE MINING DIVISION MAR 19 1991 TIME 10:35

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

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) GEOPHYSICS

Township or Area NATAL TWP.

Claim Holder(s) EDWARD J. CLARK

MICHAEL J. PERKINS 514 CRAWFORD ST TORONTO, ONT. M6G 3J8

Survey Company J.A. CLARK

Author of Report JENNIFER A. CLARK

Address of Author #705-345 DUFFERIN ST. TORONTO

Covering Dates of Survey 25-07-90 to 04-10-90 (linecutting to office)

Total Miles of ~~Line Cut~~ Grid 14.0 km.

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

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

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

DATE: March 7/91 SIGNATURE: Jennifer A. Clark Author of Report or Agent

Res. Geol. _____ Qualifications 2.14113

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	1134044
	1133933
	1134043
	1133932
	1134041
	1134039

If space insufficient, attach list

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MAY 09 1991
MINING LANDS SECTION

TOTAL CLAIMS 6

OFFICE USE ONLY

837 (85/12)

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 CRONE GEOPHYSICS RADEM RECEIVER

Coil configuration _____

Coil separation _____

Accuracy ± 1/20

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

Frequency 24.0 KHz - CUTLER, MAINE & 21.4 KHz, ANNAPOLIS, MD.
(specify V.L.F. station)

Parameters measured DIP

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

Geophysical-Geological-Geochemical Technical Data Statement

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) GEOLOGY

Township or Area NAIRN TWP.

Claim Holder(s) EDWARD J. CLARK

#705-345 DUFFERIN ST. TORONTO, ONT M6K3G1

Survey Company J. A. CLARK

Author of Report JENNIFER A. CLARK

Address of Author #705-345 DUFFERIN ST. TORONTO

Covering Dates of Survey 27-07-91 to 30-08-91 (linecutting to office)

Total Miles of ~~Line Cut~~ Grid 4.8 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	
--Electromagnetic	
--Magnetometer	
--Radiometric	
--Other	
Geological	40
Geochemical	

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

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

DATE: March 7/91 SIGNATURE: Jennifer A. Clark Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

L 1134040 (prefix) (number)

L 1134042

If space insufficient, attach list

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MAY 10 1991

MINING LANDS SECTION

TOTAL CLAIMS 2

OFFICE USE ONLY

837 (85/12)

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 _____

_____

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 _____

_____

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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 _____

_____

_____

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Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

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) GEOLOGY

Township or Area NATAL TWP.

Claim Holder(s) EDWARD JAMES CLARK
MICHAEL J. PERKINS

Survey Company J.A. CLARK

Author of Report JENNIFER A. CLARK

Address of Author #705-345 DUFFERIN ST. TORONTO

Covering Dates of Survey 27-07-90 to 30-08-90
(linecutting to office)

Total Miles of Line Cut _____

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	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	20
Geochemical	

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

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

DATE: March 7/91 SIGNATURE: Jennifer A. Clark
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

L. 1134043 (prefix) (number)
1133932

If space insufficient, attach list

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MAY 09 1991
MINING LANDS SECTION

TOTAL CLAIMS 2

OFFICE USE ONLY

837 (85/12)

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 _____

_____

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 _____

_____

_____

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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 _____

_____

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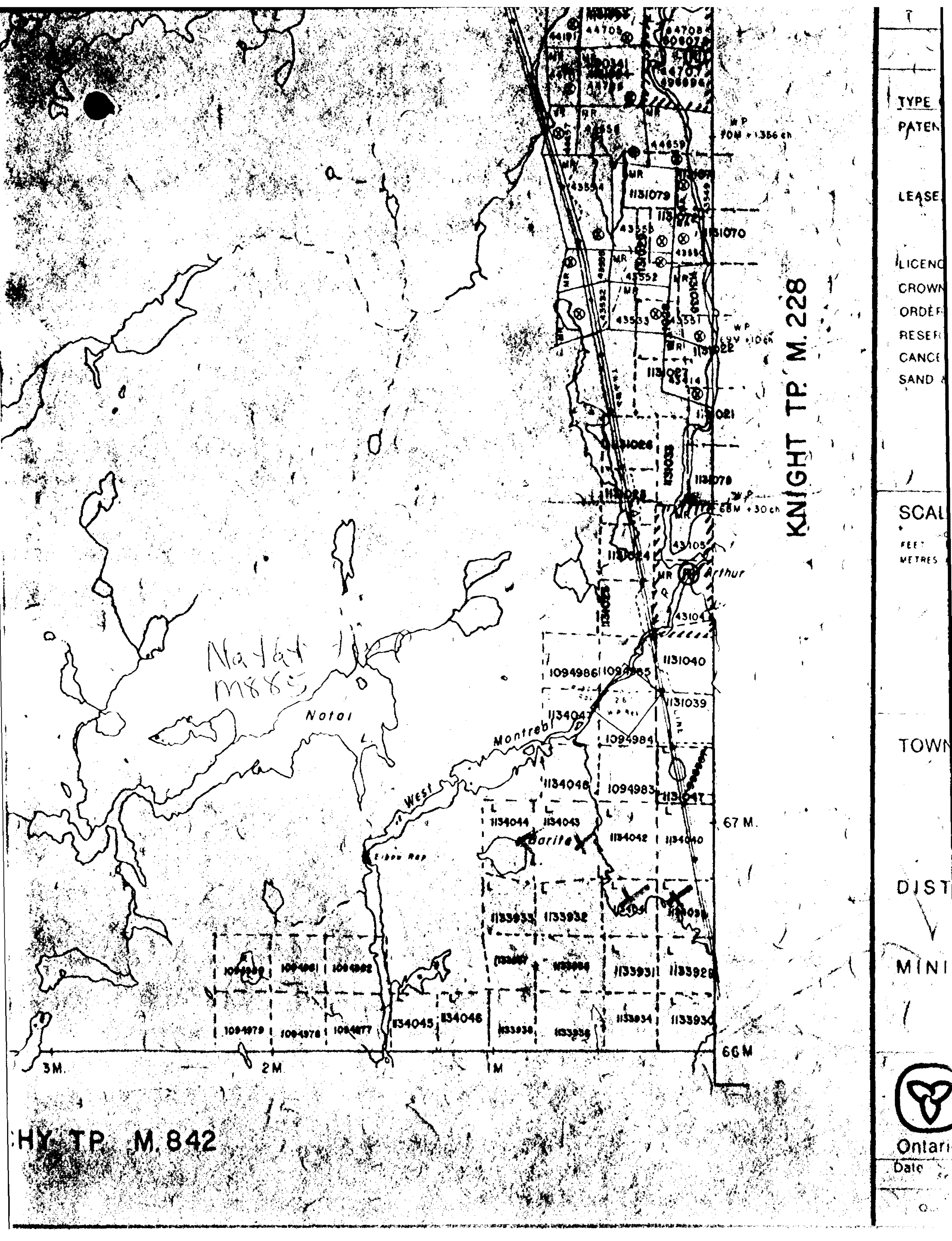

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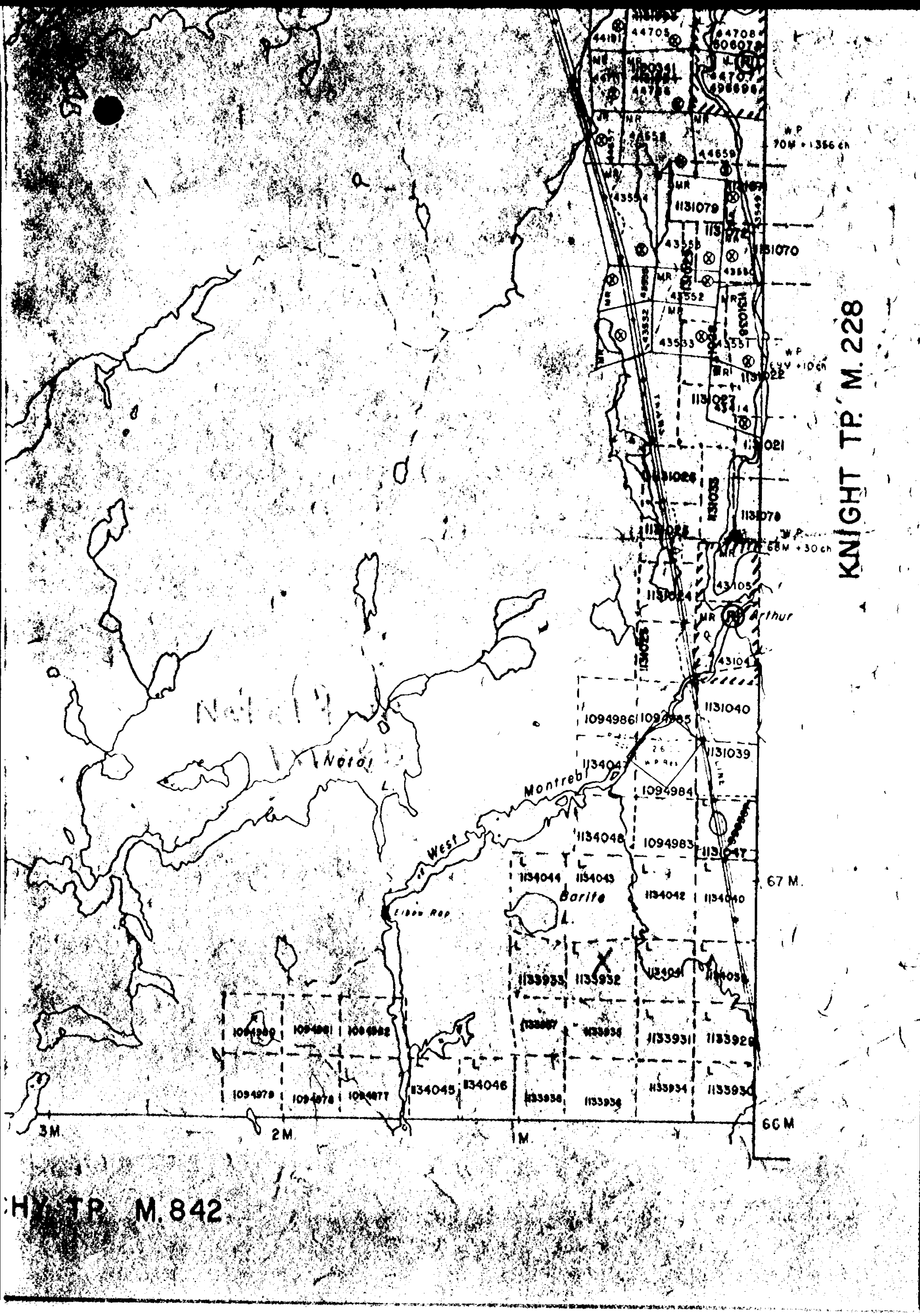

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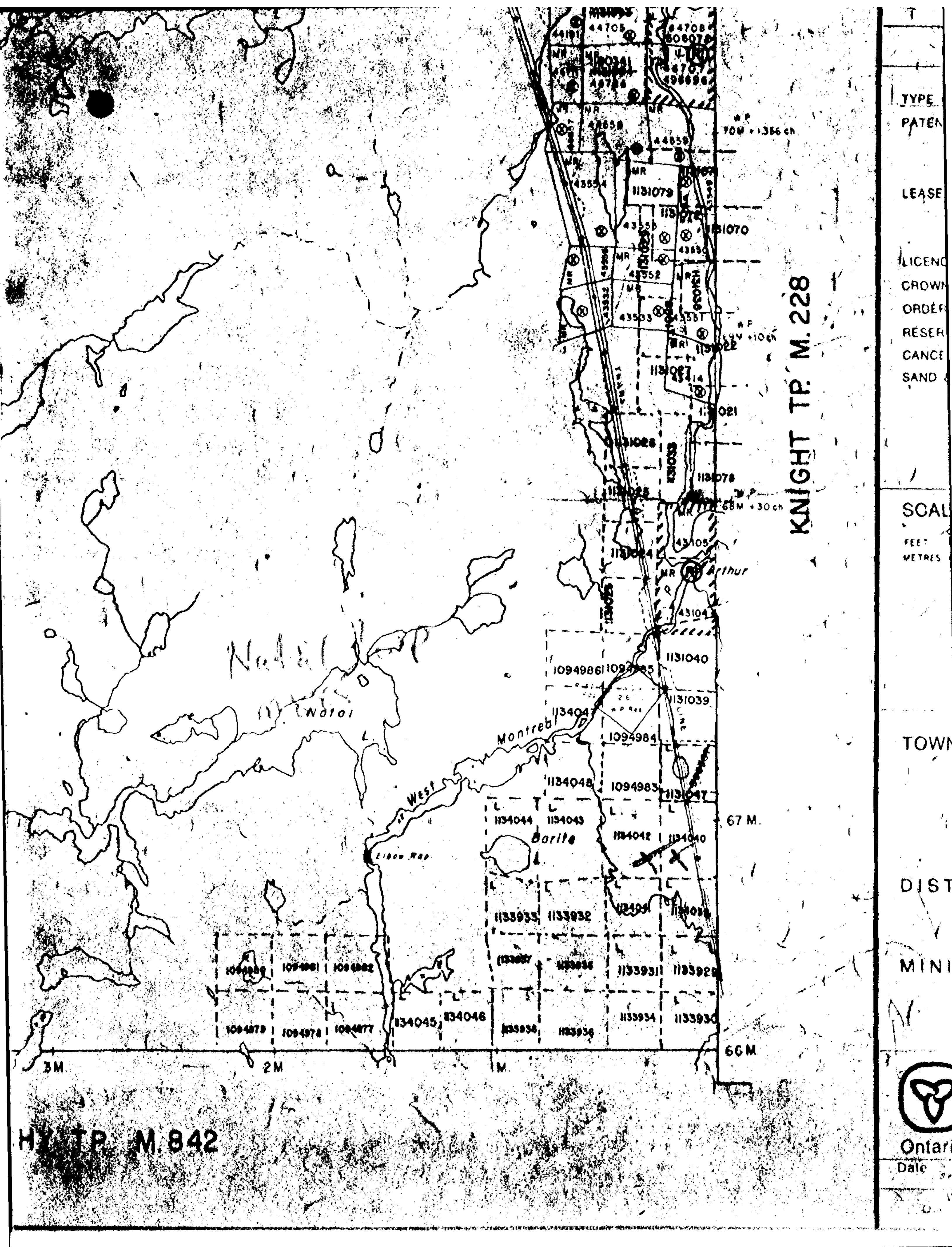
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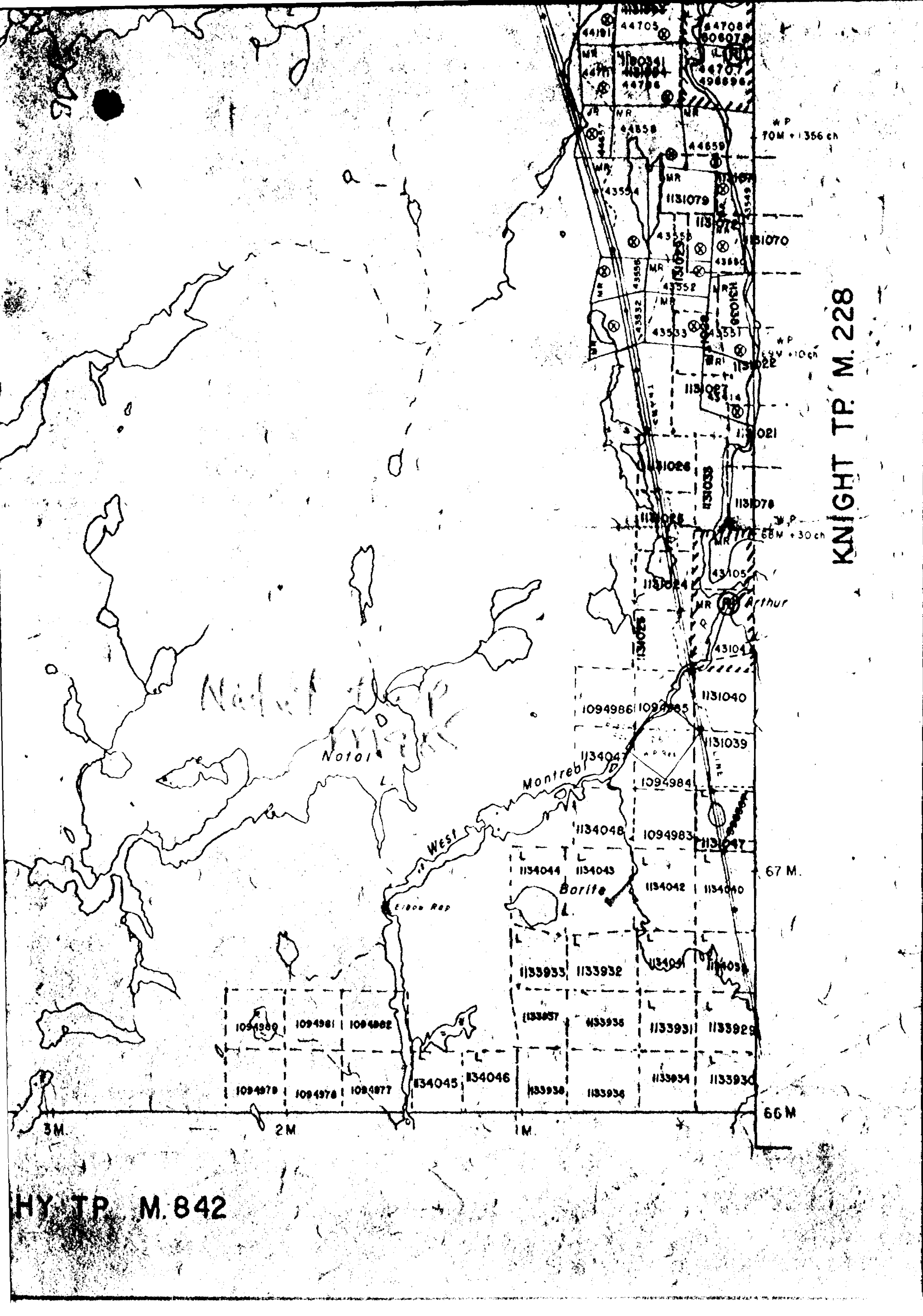

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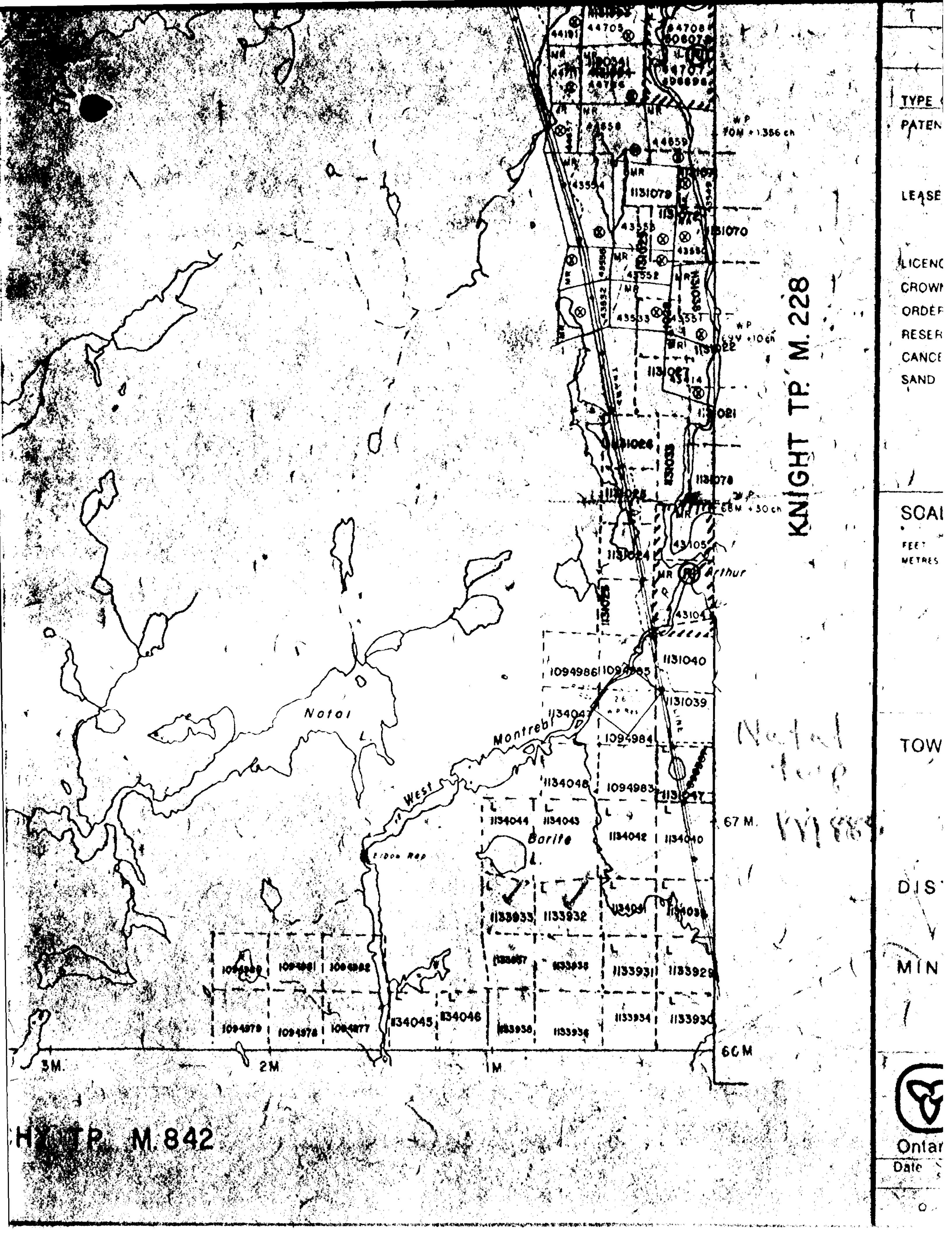

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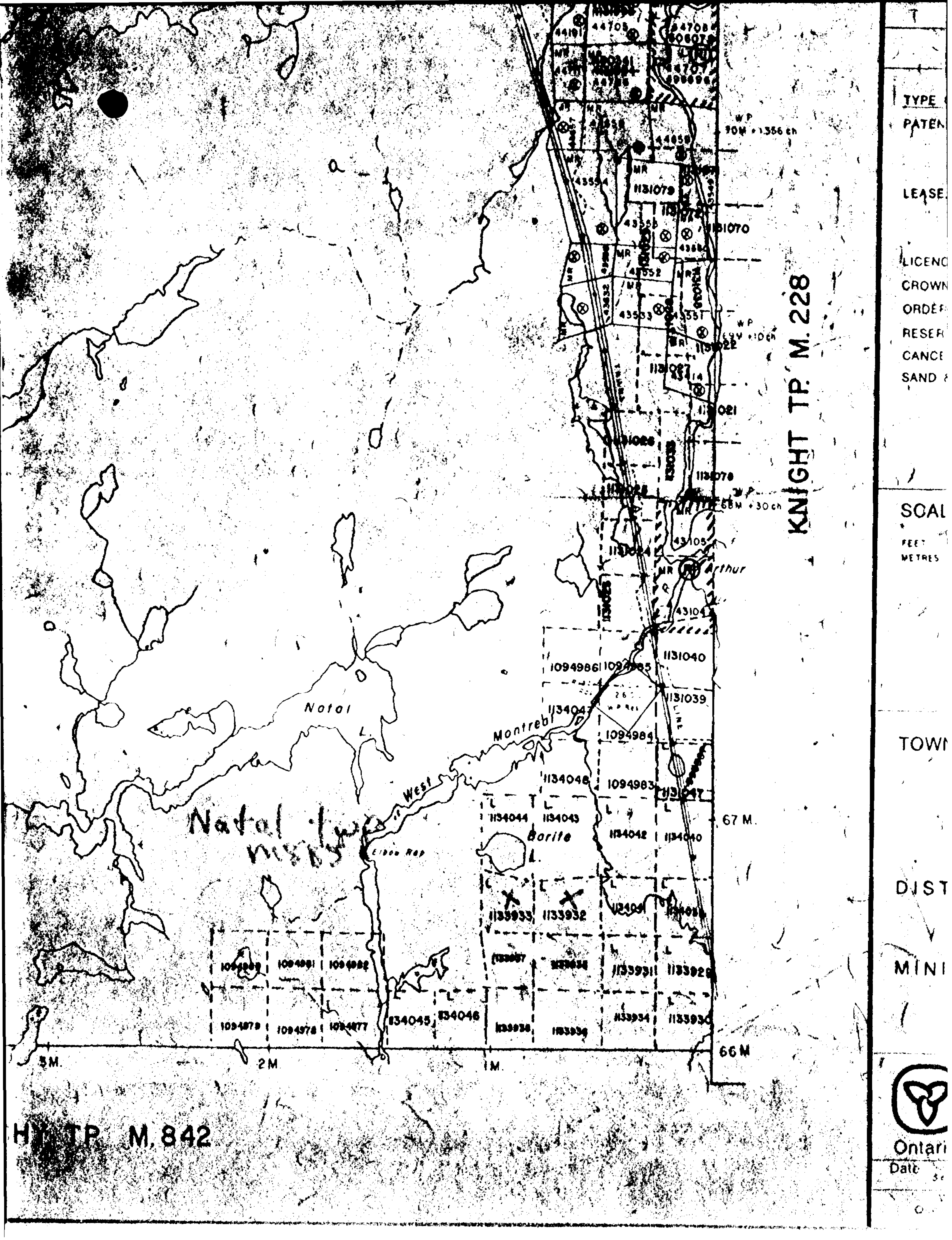
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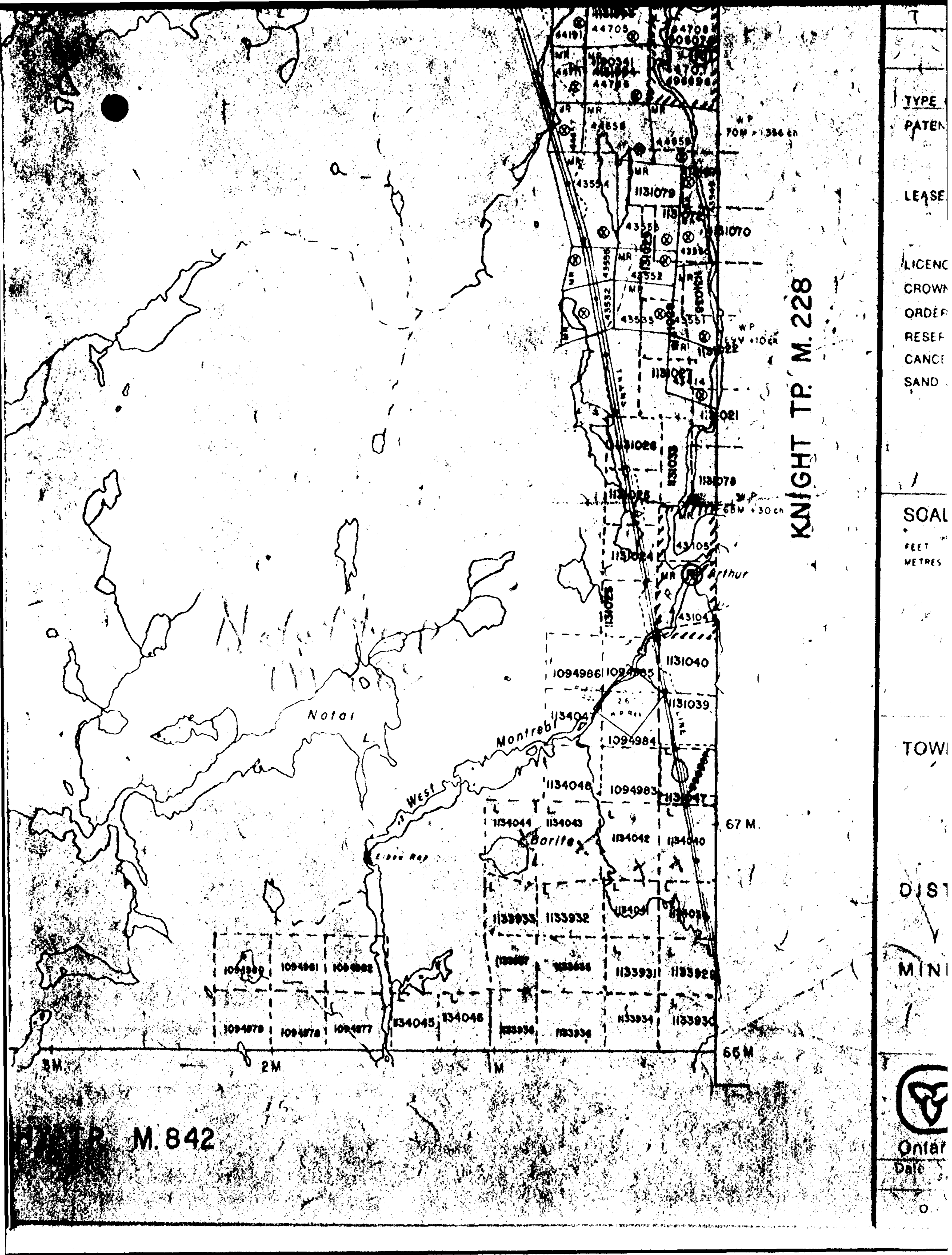

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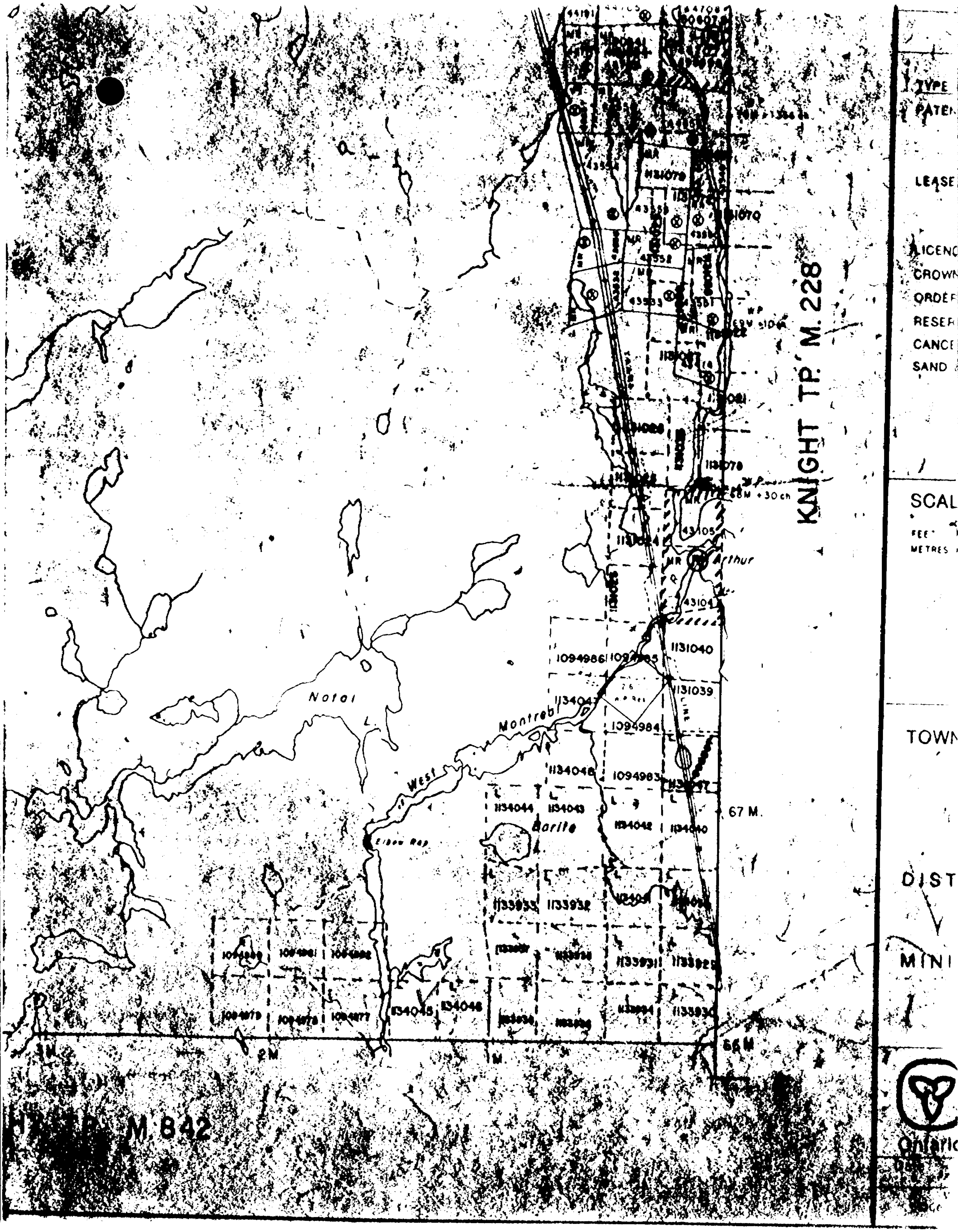
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Ontario

UNIVERSITY OF TORONTO

Department of Geology-Toronto-Canada-M5S 3B1
Earth Sciences Centre, 22 Russell Street,
Tel: (416)978-3022
Fax: (416)978-3938

FAX COMMUNICATIONS COVER PAGE

DATE: May 17/91

TO: Lucille

FAX NO: 705-670-7262

FROM: Jennifer Clark

NO. OF PAGES: 4 (Incl. this page)

Message ⇓

Please deliver to Lucille in Lands Branch.

Lucille - Please call 978-4272 (416) and confirm that this is the correct info requested.

Re: Assessment Technical Rpt. deficiency - Natal Twp.

$380.

GEOCHEMICAL ~~SURVEY~~ – PROCEDURE RECORD

Numbers of claims from which samples taken L 1134045 NATAL TWP

Total Number of Samples 18

Type of Sample Rock (Nature of Material)

Average Sample Weight 1Kg

Method of Collection GRAB

Soil Horizon Sampled n/a

Horizon Development n/a

Sample Depth 0m

Terrain outcrop

Drainage Development good

Estimated Range of Overburden Thickness 0

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

Mesh size of fraction used for analysis
± 100 mesh

General

ANALYTICAL METHODS

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

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

Others Au (ppb)

Field Analysis (____ tests)

Extraction Method

Analytical Method

Reagents Used

Field Laboratory Analysis

No. (____ tests)

Extraction Method

Analytical Method

Reagents Used

Commercial Laboratory (18 rock tests)

Name of Laboratory SWASTIKA

Extraction Method Au: HCl + aqua regia all others HCl + nitric acid

Analytical Method A. Absorption

Reagents Used

General

These expenditure credits are to be "banked" as per Report of Work describing expenditures.

E. J. Clark

per J. Clark

Please attach this to the Report that you recently received from Permitor Clark. It was posted to your office on May 8th but this was omitted by accident.

E J Clark
416-531-0911.

DOCUMENT
W9108. CC114

(WORK)

Ministry of Northern Development and Mines
Ontario

N.th.

Mining Act

Report of Work 2.14113
(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): GEOPHYSICS - ELECTROMAG
Mining Division: LARDER LK.
Township or Area: NATAL TWP.

Recorded Holder(s): MICHAEL J. PERKINS
Prospector's Licence No.: A.49379

Address: 51H CRAWFORD STREET, TORONTO, ONTARIO M6G 3J8
Telephone No.: 534-6940 (416)

Survey Company: J.A. CLARK

Name and Address of Author (of Geo-Technical Report): JENNIFER CLARK, #705-345 DUFFERIN ST. TORONTO, ONT. M6K-3G1
Date of Survey (from & to): 25 7 90 04 10 90 (Day Mo. Yr. / Day Mo. Yr.)

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions	Geophysical	
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	
For each additional survey: using the same grid	- Other	
Enter 20 days (for each)	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- 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: March 7/91
Recorded Holder or Agent (Signature): Jennifer A. Clark

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Mining Claim Prefix	Number	Mining Claim Prefix	Number
L.	1133932				
	1133933				

RECEIVED
MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 2

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: JENNIFER A. CLARK · ADDRESS AS ABOVE

Telephone No.: (416) 531-0974
Date: March 7/91
Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
80	March 15/91	[signature]
	Date Approved as Recorded	Provincial Manager, Mining Lands

Received Stamp
RECEIVED
LARDER LAKE
MINING DIVISION
MAR 15 1991
TIME 10.59 am

1362 (89/06)

Ministry of Northern Development and Mines
Ontario

DOCUMENT No. 9108. 00115

Mining Act

Report of Work 2.14113
(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	LARDER LAKE	NATAL TWP.

Recorded Holder(s): M. J. PERKINS
Prospector's Licence No: A. 49379
Address: 514 CRAWFORD ST. TORONTO, ONT. M6G 3J8
Telephone No: 534-6940 (416)
Survey Company: J. CLARK
Name and Address of Author (of Geo-Technical Report): JENNIFER A. CLARK - #705-345 DUFFERIN ST. TORONTO. M6K 3G1
Date of Survey (from & to): 27 07 90 (Day Mo Yr) — 30 08 90

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	
	Geophysical - Magnetometer	
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 - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	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
L	1133932				

RECEIVED
MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 1

Date: MARCH 7/91
Recorded Holder or Agent (Signature): Jennifer A. Clark

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: JENNIFER A. CLARK - ADDRESS AS ABOVE
Telephone No: (416) 531-0974
Date: MARCH 7/91
Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
20	Mar. 15/91 (Date Approved as Recorded)	(Provincial Manager, Mining Lands)

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MINING DIVISION
MAR 15 1991
TIME 10:59 am

1362 (89/06)

Ministry of Northern Development and Mines
Ontario

(WORK)

DOCUMENT No. W9108. 00116

Mining Act

Report of Work 2.14113
(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
GEOPHYSICS - ELECTROMAG.	LARDER LK.	NATAL TWP.

Recorded Holder(s) EDWARD J. CLARK — **Prospector's Licence No** A. 30680

Address #705 - 345 DUFFERIN STREET, TORONTO, ONTARIO M6K 3G1 — **Telephone No** (416) 531-0974

Survey Company J.A. CLARK

Name and Address of Author (of Geo-Technical Report) JENNIFER CLARK - ADDRESS SAME AS ABOVE

Date of Survey (from & to) 25 7 90 (Day Mo Yr) — 04 10 90

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	
For each additional survey: using the same grid	- Other	
Enter 20 days (for each)	Geological	
	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 March 7/91 — **Recorded Holder or Agent (Signature)** E.J. Clark

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
L	1134039				
L	1134041				
L	1134043				
L	1134044				

RECEIVED
MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 4

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 JENNIFER CLARK (ADDRESS AS ABOVE)

Telephone No (416) 531-0974 — **Date** March 7/91 — **Certified By (Signature)** Jennifer A. Clark

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LARDER LAKE
MINING DIVISION
MAR 15 1991
TIME 10.59am

Total Days Cr. Recorded	Date Recorded	Mining Recorder
160	March 15/91	
	Date Approved as Recorded	Provincial Manager, Mining Lands

1362 (89/06)

Ministry of Northern Development and Mines
Ontario

DOCUMENT No. W9108.00117

WORK

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

M.L

Mining Act

Report of Work 2.14113

(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s)	Mining Division	Township or Area
GEOLOGICAL	LARDER LK.	NATAL TWP.

Recorded Holder(s): EDWARD J. CLARK

Prospector's Licence No: A.50680

Address: #705 - 345 DUFFERIN STREET, TORONTO, ONT. M6K 361

Telephone No: (416)531-0974

Survey Company: J.A. CLARK

Name and Address of Author (of Geo-Technical Report): JENNIFER CLARK - ADDRESS AS ABOVE

Date of Survey (from & to): 27 07 90 (Day Mo Yr) — 30 08 90

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	
	Geophysical - Magnetometer	
For each additional survey using the same grid: Enter 20 days (for each)	Geophysical - Other	
	Geological	40
	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: March 7/91

Recorded Holder or Agent (Signature): E.J. Clark

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
L.	1134040	✓			
	1134042	✓			

RECEIVED
MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 2

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: JENNIFER CLARK - ADDRESS AS ABOVE

Telephone No: (416) 531-0974

Date: March 7/91

Certified By (Signature): Jennifer A. Clark

Received Stamp

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LARDER LAKE
MINING DIVISION
MAR 15 1991
TIME 10.59 am

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
80	March 15/91	
	Date Approved as Recorded	Provincial Manager, Mining Lands

1362 (89/06)

Ministry of Northern Development and Mines

Ontario

(WORK)

DOCUMENT No. W9108.00119

2.14113

M.L

Mining Act

Report of Work
(Geophysical, Geological and Geochemical Surveys)

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Type of Survey(s)	Mining Division	Township or Area
GEOLOGICAL	LARDER LAKE	NATAL TWP.

Recorded Holder(s): EDWARD J. CLARK

Prospector's Licence No: A.50680

Address: #705 - 345 DUFFERIN STREET, TORONTO, ONT. M6K 3G1

Telephone No: (416) 531-0974

Survey Company: J.A. CLARK

Name and Address of Author (of Geo-Technical Report): JENNIFER A. CLARK - ADDRESS AS ABOVE

Date of Survey (from & to): 27 Day 07 Mo 90 Yr to 30 Day 08 Mo 90 Yr

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	
	Geophysical - Magnetometer	
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
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - 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
L	1134043	✓			

RECEIVED
MAY 16 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 1

Date: March 7/91

Recorded Holder or Agent (Signature): E.J. Clark

Certification Verifying Report of Work

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Name and Address of Person Certifying: JENNIFER A. CLARK - ADDRESS AS ABOVE

Telephone No: (416) 531-0974

Date: MARCH 7/91

Certified By (Signature): Jennifer A. Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
20	March 15/91 Date Approved as Recorded	Provincial Manager, Mining Lands

Received Stamp

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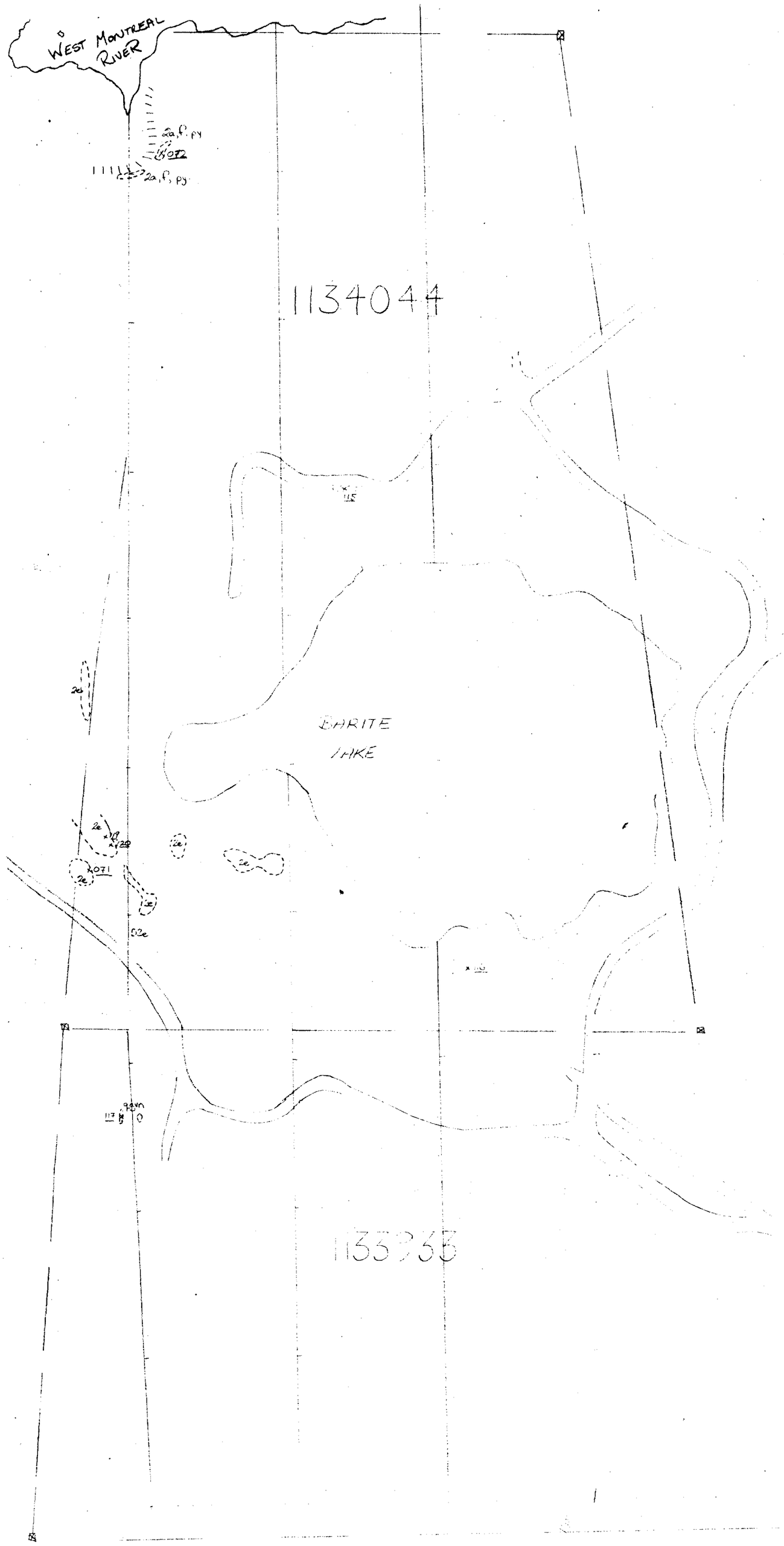
LARDER LAKE
MINING DIVISION
MAR 15 1991
TIME 10:59 am

0362 (89/06)



LEGEND

Symbols

- Outcrop / no ole No outcrop
- Geological Contact / Boulder
- Bedding / Jointing
- Foliation / Fault
- 081. 082 Sample number, assay sample number
- Swamp (open/treed)
- Elevated Topography
- Down Slope Direction
- Claim Line and Post (astronomic north)
- 1134039 Claim number
- Hydro Line
- Logging Road (distinct/overgrown)

Mineral Abbreviations

fp	feldspar	amph	amphibole
ep	epidote	py	pyrite
ca	calcite	cp	chalcopyrite
q.v.	quartz vein		

Lithological Units (not in chronological order)

5. Mafic Intrusives
   - a. Diabase
   - b. Gabbro
4. Metasediments
   - a. Conglomerate (Huronian?)
3. Felsic Metavolcanics
2. Intermediate Metavolcanics
   - a. Flows
   - b. Porphyritic Flows
   - c. Porphyritic Flows (Feldspar ± quartz phenocrysts)
   - d. Tuff
   - e. Crystal Tuff
   - f. Lapilli Tuff (phenocritic fragments)
   - g. Lapilli Tuff (aphanitic fragments)
   - h. Agglomerate
1. Mafic and Ultramafic Metavolcanics
   - a. Flows
   - b. Tuffs
   - c. Lapilli Tuff
   - d. Calcite Breccia

SHININGTREE PROJECT

NATAL TWP

1:2000 ? 50 100m

PROSPECTING SAMPLE MAP

1990, J. A. Clark.

2.14113

LEGEND

Symbols

- Outcrop
- no o/c — No outcrop
- Geological Contact
- ⊗ — Boulder
- Bedding
- Jointing
- Foliation
- Fault
- 001, 002 — Sample number, assay sample number
- Swamp (open/treed)
- Elevated Topography
- Down Slope Direction
- Claim Line and Post
- astronomic north
- 1134039 — Claim number
- Hydro Line
- Logging Road (distinct/overgrown)

Mineral Abbreviations

fx	feldspar	amph	amphibole
ep	epidote	py	pyrite
ca	calcite	cp	chalcopyrite
q.v.	quartz vein		

Lithological Units (not in chronological order)

5. Mafic Intrusives
   - a. Diabase
   - b. Gabbro
4. Metasediments
   - a. Conglomerate (Huronian?)
3. Felsic Metavolcanics
2. Intermediate Metavolcanics
   - a. Flows
   - b. Porphyritic Flows
   - c. Porphyritic Flows (feldspar & quartz phenocrysts)
   - d. Tuff
   - e. Crystal Tuff
   - f. Lapilli Tuff (phaneritic fragments)
   - g. Lapilli Tuff (aphanitic fragments)
   - h. Agglomerate
1. Mafic and Ultramafic Metavolcanics
   - a. Flows
   - b. Tuffs
   - c. Lapilli Tuff
   - d. Calcite Breccia

2.14113

SHININGTREE PROJECT	
GEOLOGY	
SCALE 1:2000	20m 40m
N.T.S.: 41·P·11	TOWNSHIP: NATAL
DATE: July - Aug. 1990	WORK BY: J. CLARK

CLAIM HOLDERS: 1133932 - Michael J. Perkins
all others - Edward J. Clark

41P11NE0033 2.14113 NATAL

210

2.14113

SWAMP
CLAIM LINE
CLAIM POST
L1133932 CLAIM NUMBER

Survey on N-S Lines - Station - Cutler, Maine
E-W Lines - Station - Anapolis, Maryland

SHININGTREE PROJECT	
V.L.F. E-M SURVEY (CRONE RADEM)	
SCALE 1:2000	20m 0
NTS: 41-P-11	TOWNSHIP: NATAL
DATE: JULY-OCT. 1990	WORK BY: E.J. Clark, M.J. Perkins

CLAIM HOLDER: 1133932 + 1133933 - Michael J. Perkins
All others - Edward J. Clark

220