010

GEOPHYSICAL SURVEY REPORT
CAMERON LAKE PROJECT
AREA OF ROWAN LAKE (M-2580)
& AREA OF DOGPAW LAKE (M-2585)
NTS: 52 F 5

Magnetic and Electromagnetic Survey Reports

Cameron Lake Project, Ontario

Areas of Rowan Lake (M-2580) & Dogpaw Lake (M-2585)

NTS: 52 F 5

Claims (Fig. 2)

The property consists of 67 unpatented mining claims, however, only 39 claims in the southern part of the property have been surveyed geophysically to this date. Claims covered by this report are listed as follows:

K 589869 to K 589895 incl.
K 589927 and K 589928
K 629451 to K 629456 incl.
K 629461 to K 629464 incl.

Location and Access (Fig. 1)

The surveyed property overlies the eastern end of Stephen Lake, approximately 25 kilometers northeast of Nestor Falls, Ontario. Easiest access to the property is by fixed wing aircraft, however, the area can also be reached in summer by canoe or in winter by snow machine from Sioux Narrows travelling roughly 29 kilometers to the southeast.

The claim group occurs at the common boundary of the "Area of Rowan Lake (M-2580)" and the "Area of Dogpaw Lake (M-2585)". Lat: 49°15'15"N, Long: 93°47'W.

Previous Exploration Work

In 1960 Noranda Mines Limited did geological mapping and rock trenching within the current property surrounding Derry Lake.

Canadian Nickel Company held a small group of claims south of Derry Lake immediately adjacent to the current claim boundary, and shallow drilling was done to explain ground conductors in 1972.

A number of mining companies and individuals have explored the general area in search of gold and base metals since the turn of the century. Most of this early work is described in:

Geoscience Report #134
Geology of the
Cedartree Lake Area
District of Kenora
by J.C. Davies and J.A. Morin

Object of Surveys

The main purpose of the magnetic survey was to outline basic and ultrabasic rock types and iron formation containing disseminated magnetic minerals such as magnetite and/or pyrrhotite located in areas covered with overburden.

The electromagnetic survey was done to outline ground conductors that might represent heavily mineralized sulphide zones which could be either magnetic or non-magnetic, and also locate conductive shear zones which may have associated gold mineralization.

Procedure (Magnetic Survey)

The instruments used are Sharpe "MF-1" and Scintrex "MF-2" fluxgate magnetometers which measure the vertical component of the earth's magnetic field directly in gammas, positive or negative, over a range of 100,000 gammas. These hand held magnetometers require no orientation and after coarse levelling the magnetic reading is recorded from a meter mounted on the top of the instrument.

In order to establish a network of reliable magnetic base stations the following procedure was used: Both magnetometers were arbitrarily adjusted to read 1640 gammas at 13W on the 8N base line. One instrument was then used as a base recording magnetometer with readings and times recorded at three minute intervals. The second instrument was used to read base line stations at grid line intersections along the 8N base line from 14W to 27W and also along the 12N base line from 27W to 50W. All readings were then drift corrected to the appropriate base station magnetometer reading.

To obtain base reference stations along the 20+50N base line from 20W to 40W, and along the 24+50N base line from 40W to 59W, the same procedure was used working from the pre-established station value of 1600 gammas at 12N-27W.

Magnetic readings were taken at 12.5 meter intervals along 100 meter spaced grid lines. Most readings were recorded in the 3000 gammas instrument range, however, the 10 K scale was used occasionally while the 30 K scale was used rarely.

Procedure (Electromagnetic Survey)

The "Radem" VLF electromagnetic unit used on this survey was designed by Crone Geophysics Limited. An explanation of the Radem's operation is quoted from Crone's operating instructions:

"The VLF Communication Broadcast stations are positioned throughout the world. At present, 17 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."

Parameters measured by the Radem unit are: (a) Dip angle of resultant field, (b) Out-of-phase measurement, (c) Horizontal component of the field strength.

The claims surveyed electromagnetically were read at 25 meter station intervals on 100 meter spaced grid lines. Transmitting station used is NSS Annapolis, Maryland operating at 21.4 KH_Z with power output of 400 Kw. Only the dip angle of the resultant field was measured and recorded. Readings are plotted in profile form and a conductor axis is indicated when EM readings cross the grid line from west to east while the operator is traversing southward.

Survey Data

Line cutting, chaining, magnetic and electromagnetic surveying were all carried out by Inco employees during the period January 17th to March 14, 1983. Personnel involved in this project lived in a tent camp on the west side of the property in the northwest corner of the eastern arm of Stephen Lake.

Supervisor in charge of the survey was:

W.O. Manson
P.O. Box 1135
Copper Cliff, Ontario

Total base and control line cut and chained	= 8.3 km
Total grid line cut and chained	= 65.4 km
Total number of magnetic readings	= 5,463
Total number of electromagnetic readings (VLF)	= 2,762

Survey Results (Magnetic Fig. 4)

Magnetic survey results are shown on five accompanying plans drafted on a scale of 1:2500. Magnetic readings are plotted in gamma values relative to an arbitrary base station value of 1640 gammas at 8N-13W. Magnetic contour line intervals are as follows:

200 gammas light solid line
1000 gammas heavy solid line
5000 gammas heavy broken line

The significant magnetic anomalies outlined are briefly described as follows: (Fig. 3)

Sheets #1 and #4:

Scattered narrow linear parallel magnetic anomalies, varying in strike length from 100 meters to 800 meters, can be seen crossing these sheets in a northwest-southeast direction. Magnetic intensity of these positive anomalies varies from +200 to +3000 gammas above magnetic background.

Sheets #2 and #5:

At the northwest corner of Sheet 2 and the southwest corner of Sheet 5, claims K 589890 and K 589881 contain portions of several strong linear anomalies that strike east-west opposing the general northwest-southeast magnetic trend which is most prominent in this area. The intensities of the magnetic zones partially outlined range from -4,000 gammas below background to +19,000 gammas above background.

Sheet #3:

No anomalies of interest occur on this sheet.

Survey Results (Electromagnetic Fig. 5)

VLF electromagnetic survey results are also shown on five plans on a scale of 1:2500. Readings are plotted in profile form and the number written at the station denotes the tilt angle in degrees positive or negative. Negative values are plotted on the east side of the section line and positive values are plotted to the west.

The VLF survey outlined a number of parallel broken conductive zones ranging in strength from weak to strong and occurring at random intervals across the entire survey area. Strike direction of these conductors generally agrees with the northwest-southeast strike of the magnetic anomalies described earlier, however, the conductivity does not correlate directly with the magnetic zones. Many of the conductors outlined show a distinct affinity for lakes and low wet ground. Note the locations of VLF conductors conforming with the exact outline of small lakes and equidistant from the shorelines. All VLF conductors were categorized with a number 1, or 2, with the number 1's representing most probable bedrock source conductors. These sources could be shear and fault zones with minor sulphides and possibly weak graphitic conductors. The second group is expected to be caused by superficial materials that can produce conductivity contrasts such as lake bottom and swamp edges. Faulty crossovers can also be produced by changes in the slope of the topography. One has however to consider that this second

group can be a secondary expression of the first type. For instance the lake bottom can mask the response of a shear zone, the shear zone could have allowed deeper erosion that gave room for the lake bottom material to settle over it.

Little emphasis is given to the amplitude of the crossover. Their determination is especially difficult in these cases where the level of the VLF response is variable in the presence of conductive overburden and changes of the topographical slopes.

Conclusions

The magnetic survey outlined clusters of thin erratic magnetic anomalies probably caused by magnetite rich lenses in basalt. Because of the narrow width of anomalies and abrupt changes in magnetic intensity the bedrock source must be very near surface.

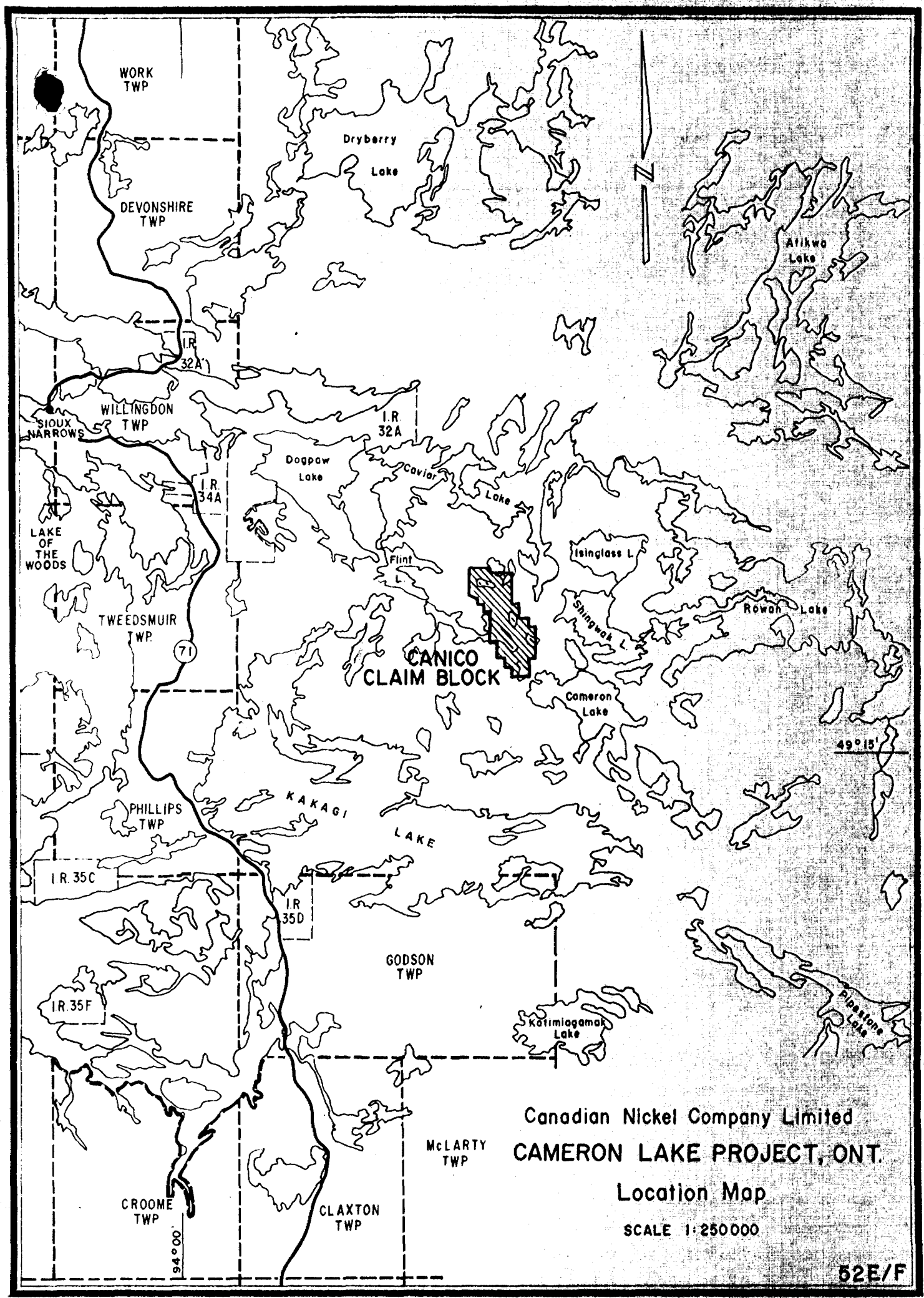
A strong anomalous area on Sheets #2 and #5 coincide with a gabbro plug.

The VLF survey outlined several dozen conductors which conform with magnetic trends and known geology. Some of the conductors classified as number 1's may have a bedrock source.

Recommendation

Complete the grid cutting and magnetic and electromagnetic surveys in the north half of the property. Detail geological mapping should be carried out throughout the grid area. When all this work has been compiled and assessed then a drill program can be planned.

G.J. Gereghty
May 16, 1983



Canadian Nickel Company Limited

CAMERON LAKE PROJECT, ONT.

Location Map

SCALE 1:250000

52E/F

FIGURE 1

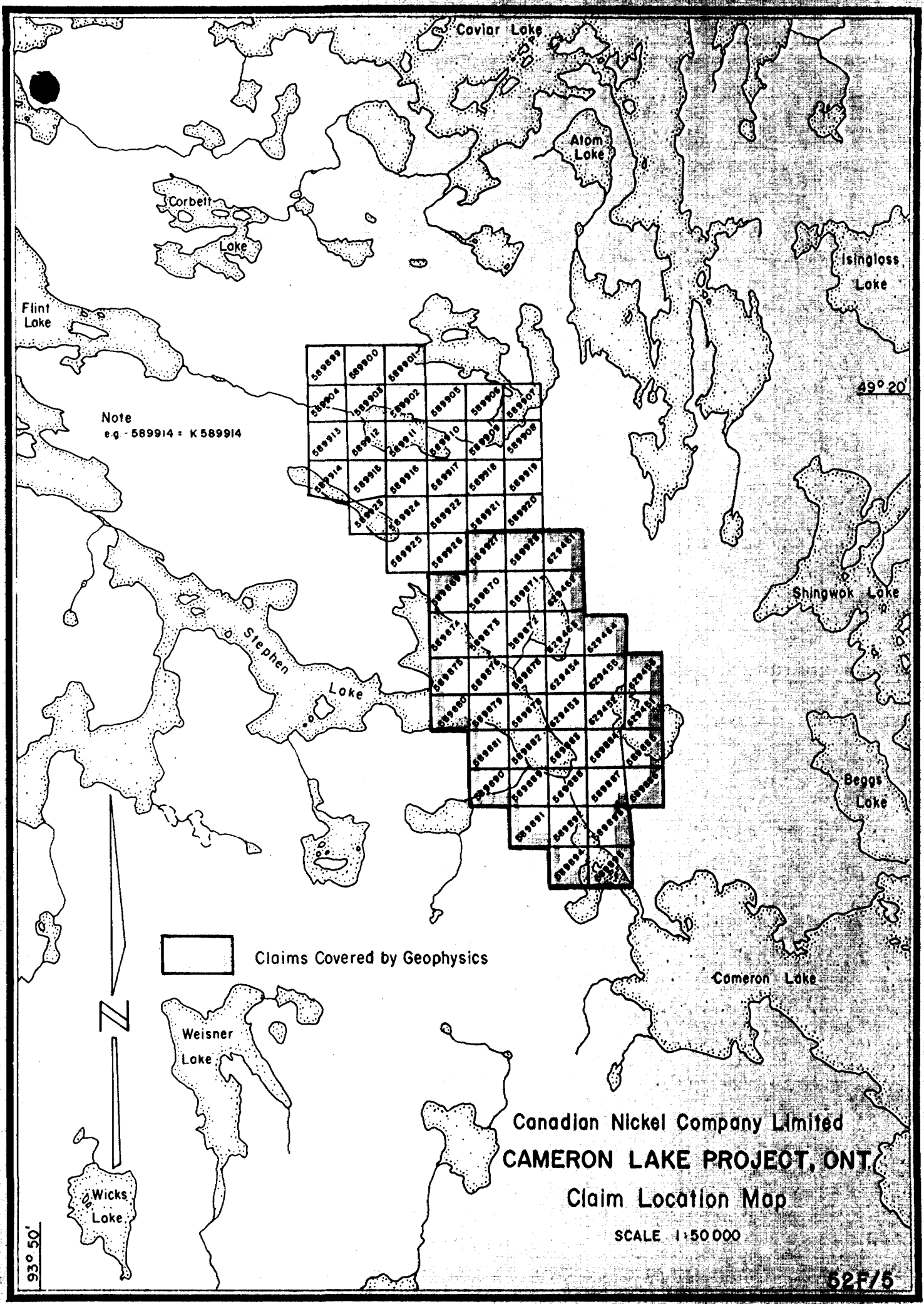

Caviar Lake
Atom Lake
Corbeil Lake
Isinglass Lake
Flint Lake
49° 20'
Note
e.g - 589914 = K 589914
Shingwok Lake
Stephen Lake
Beggs Lake
Claims Covered by Geophysics
Cameron Lake
Weisner Lake
Wicks Lake
93° 50'
N
Canadian Nickel Company Limited
CAMERON LAKE PROJECT, ONT.
Claim Location Map
SCALE 1:50 000
52F/5

FIGURE 2

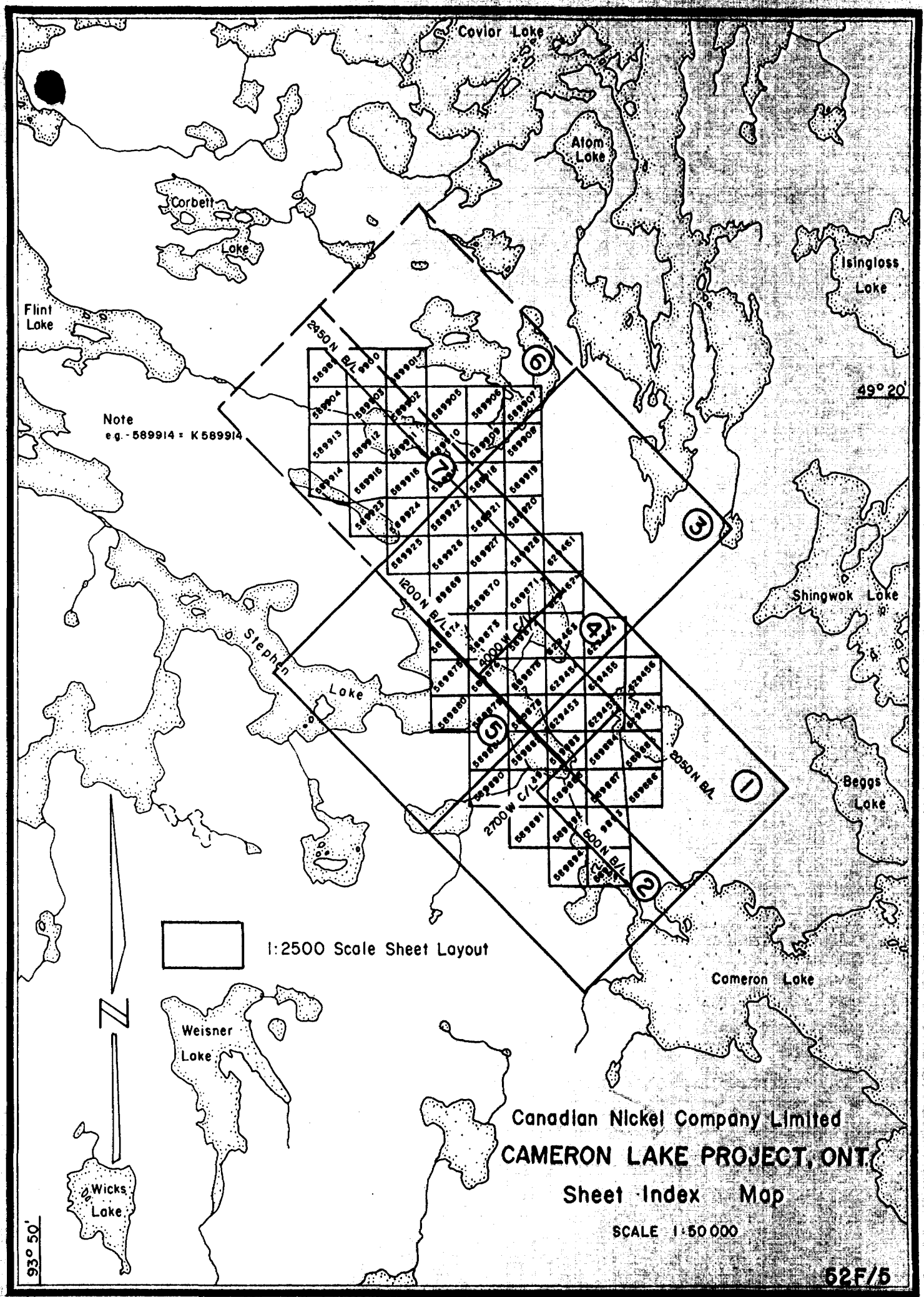

Covior Lake
Atom Lake
Corbett Lake
Isingloss Lake
Flint Lake
49° 20'
Note
e.g. - 589914 = K 589914
2450 N B/L
1200 N B/L
4000 W C/L
2700 W C/L
2050 N BL
600 N B/L
Shingwok Lake
Stephen Lake
Beggs Lake
Cameron Lake
Weisner Lake
Wicks Lake
93° 50'
1:2500 Scale Sheet Layout
N
Canadian Nickel Company Limited
CAMERON LAKE PROJECT, ONT.
Sheet Index Map
SCALE 1:50 000
52F/5

FIGURE 3

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

2.5

#28-83

The Min

52F05SE0109 2.5559 ROWAN LAKE

900

Type of Survey(s)	Township or Area
Geophysical (Magnetometer and V.L.F.)	M-2580 M-2585 Areas of Rowan Lake & Dogpaw Lake

Claim Holder(s)	Prospector's Licence No.
Canadian Nickel Company Limited	A-17527

Address: Hwy. 17 West, Copper Cliff, Ontario POM 1NO

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Canadian Nickel Company Limited	17 Day | 01 Mo. | 83 Yr. — 14 Day | 03 Mo. | 83 Yr.	72.16 kms

Name and Address of Author (of Geo-Technical report)
G.J. Gereghty, c/o Canadian Nickel Company Limited, Copper Cliff, Ontario POM 1NO

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

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
JUN 8 1983
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	589869	
	589870	
	589871	
	589872	
	589873	
	589874	
	589875	
	589876	
	589877	
	589878	
	589879	
	589880	
	589881	
	589882	
	589883	
	589884	
	589885	
	589886	
	589887	
	589888	
	589889	
	589890	
	589891	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	589892	
	589893	
	589894	
	589895	
	589927	
	589928	
	629451	
	629452	
	629453	
	629454	
	629455	
	629456	
	629461	
	629462	
	629463	
	629464	

KENORA MINING DIV.
RECEIVED
MAR 24 1983
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

589869

Total number of mining claims covered by this report of work: 39

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
2340	Mar 24/83	
	Date Approved as Recorded: 83.09.20	Branch Director

Date	Recorded Holder or Agent (Signature)
March 18, 1983	W.V. Rodney

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 Postal Address of Person Certifying
W.V. Rodney, c/o Canadian Nickel Company Limited
Copper Cliff, Ontario POM 1NO

Date Certified	Certified by (Signature)
March 18, 1983	W.V. Rodney

1362 (81/9)

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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) Geophysical (Magnetometer and V.L.F. EM)

Township or Area Area of Rowan Lake & Area of Dogpaw Lake

Claim Holder(s) Canadian Nickel Company Limited
Copper Cliff, Ontario P0M 1N0

Survey Company Canadian Nickel Company Limited

Author of Report G.J. Gereghty c/o Canadian Nickel Company

Address of Author Limited, Copper Cliff, Ontario P0M 1N0

Covering Dates of Survey January 17 - March 14, 1983
(linecutting to office)

Total Miles of Line Cut 73.7 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	40
--Magnetometer	20
--Radiometric	
--Other	
Geological	
Geochemical	

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

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

DATE: May 16, 1983 SIGNATURE: A.J. Gereghty
Author of Report or Agent

Res. Geol. _____ Qualifications 63.2370

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

SEE APPENDIX 'A'

If space insufficient, attach list

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MAY 19 1983
MINING LANDS SECTION

TOTAL CLAIMS 39

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 2762 (VLF); 5463 (Mag) Number of Readings 2762 (VLF); 5463 (Mag)

Station interval 12.5 m (Mag); 25 m (VLF) Line spacing 100 metre

Profile scale 1 cm = 20°

Contour interval 200, 1000, & 5000 gammas (See legend on plans)

MAGNETIC

Instrument Sharpe MF-1 & MF-2 fluxgate

Accuracy – Scale constant 50 gammas/scale division in 3000 gamma range

Diurnal correction method Looping and tie-ins to base line stations

Base Station check-in interval (hours) 1 to 1.5 hours

Base Station location and value 8N-13W=1640 gammas sub base stations at grid line intersections along all base lines

ELECTROMAGNETIC

Instrument Crone RADEM V.L.F. EM unit

Coil configuration Vertical loop (Vertical transmitter & horizontal receiver)

Coil separation Extremely distant radio transmitter

Accuracy ± 1/2°

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

Frequency _____ (specify V.L.F. station)

Parameters measured Dip angle of the resultant field. V.L.F. station read was "NSS" Annapolis, Maryland.

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 _____

APPENDIX 'A'

Claims Traversed

K 589869
K 589870
K 589871
K 589872
K 589873
K 589874
K 589875
K 589876
K 589877
K 589878
K 589879
K 589880
K 589881
K 589882
K 589883
K 589884
K 589885
K 589886
K 589887
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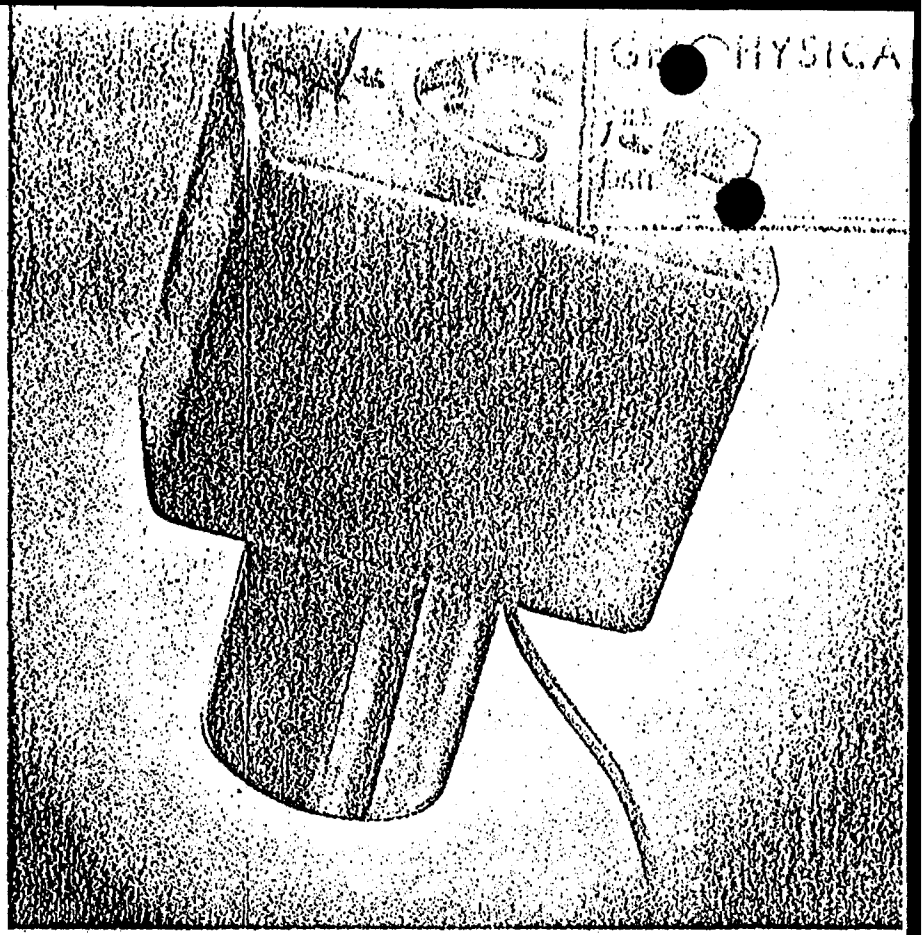
K 589892
K 589893
K 589894
K 589895
K 589927
K 589928
K 629451
K 629452
K 629453
K 629454
K 629455
K 629456
K 629461
K 629462
K 629463
K 629464

Total = 39

MF-1 FLUXGATE MAGNETOMETER

A first order fluxgate type vertical component magnetometer. Advanced transistorized circuitry and extensive temperature compensation is the core of its accuracy comparable to precision tripod mounted Schmidt type magnetometers.

It is a hand held instrument and needs only coarse levelling and no orientation. Features such as direct reading of gamma values and the possibility of accurate zero setting at base stations ensure simplicity of operation and higher field economy.



The Model MF-1 Fluxgate Magnetometer is designed for accurate ground surveys in the mining industry as well as a basic component for air surveying by small aircraft. Technical data and comparison charts available on request.

SPECIFICATIONS

MAXIMUM SENSITIVITY:
20 gammas (per scale division) on 1000 gamma range.

READABILITY:
5 gammas (¼ scale division on 1000 gamma range.

RANGES: (FULL SCALE)

1,000 gammas	
3,000 gammas	
10,000 gammas	
30,000 gammas	
100,000 gammas	

MAXIMUM RANGE: ± 100,000 gammas

LATITUDE ADJUSTMENT RANGES: 10,000 to 75,000 gammas, Northern hemisphere convertible to:
10,000 to 75,000 gammas, Southern hemisphere or ± 30,000 gammas equatorial.

DIMENSIONS: (INCLUDING BATTERY CASE) 7" x 4" x 16"

WEIGHT: (INCLUDING BATTERY CASE) 9 lbs.

BATTERIES: 12 Flashlight Batteries ("C" cell).

DESCRIPTION OF FLUXGATE MAGNETOMETER MODEL MF-1

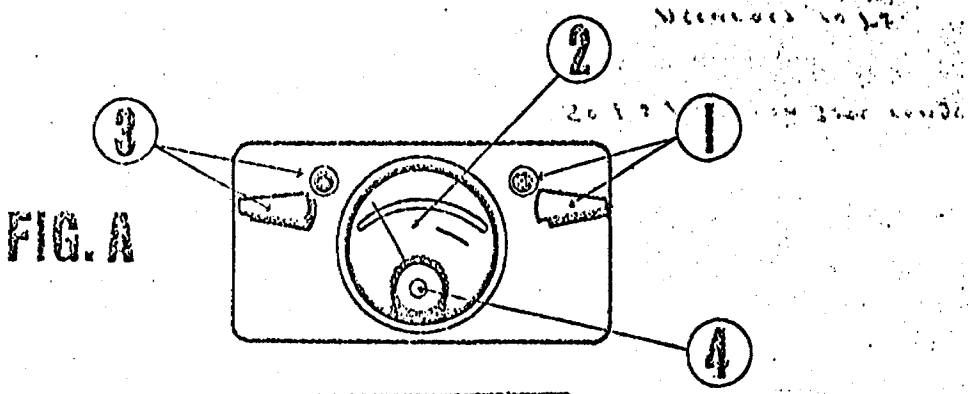


FIG. A

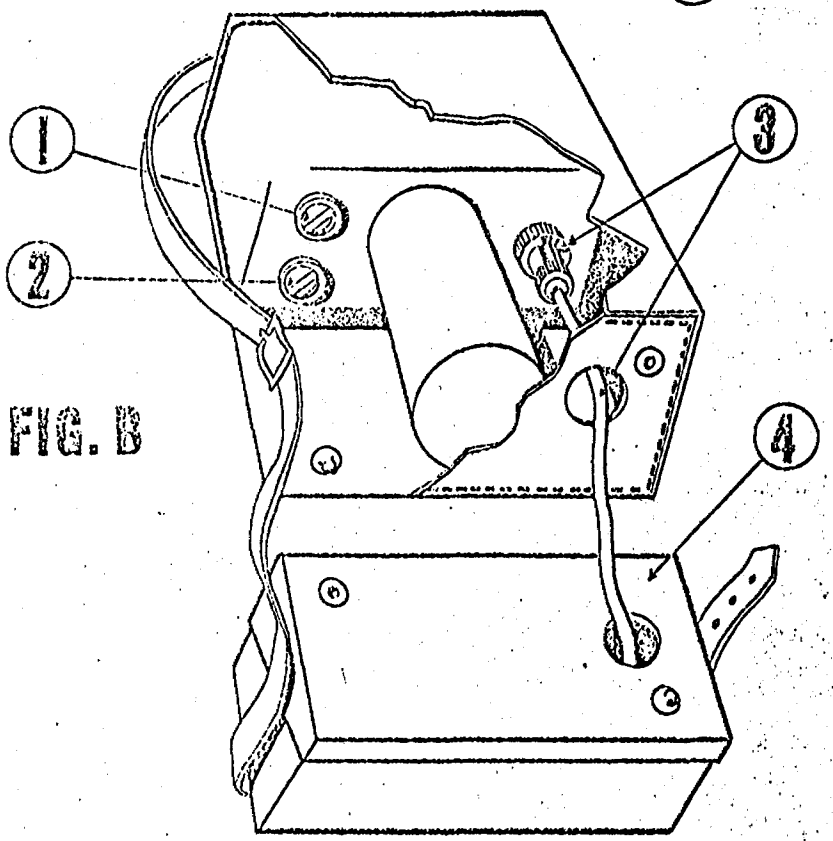


FIG. B

FIGURE A

1	RANGE SWITCH	— Indicating gamma values in ranges of 100 K, 30 K, 10 K, 3000, 1000.
2	METER SCALE	— upper scale indicating 0-1000 (50 divisions) — lower scale indicating 0-3000 (60 divisions) red arc for battery check
3	MAIN SWITCH	— showing the following steps: OFF Battery check + —
4	CIRCULAR LEVEL	— for rough levelling the instrument

FIGURE B

1	LATITUDE ADJUSTMENT SWITCH	— in steps
2	LATITUDE ADJUSTMENT	— fine
3	BATTERY CABLE AND CONNECTOR	
4	BATTERY PACK	— For transportation — attachable to instrument

E. J. SHARPE INSTRUMENTS OF CANADA LTD.

P.O. Box 279, Willowdale, Ontario

NTED IN CANADA

SCINTREX

MF-2 FLUXGATE MAGNETOMETER

The MF-2 is a completely new concept in vertical force fluxgate magnetometers. These instruments, which are designed for fast and accurate mineral ground surveys, are orientation independent, self levelling and require no tripod.

The MF-2 combines in one compact 5½ lb. package electronics, sensor and rechargeable batteries. With the latest I.C. and F.E.T. circuitry and high precision components, a temperature stability better than 1 gamma per degree is standard (with .25 gamma on special order) over a range of −40° to +40° centigrade.

The instrument has a built-in hemisphere polarity switch providing two overlapping ranges. For the Northern hemisphere the full range is +80,000 to −20,000 gammas, and reversible for the Southern hemisphere.

A calibrated feedback system can be provided which makes it possible to determine the total vertical component strength.

Measuring accuracy, on the 100 gamma scale is 0.5 gamma, and on the 1000 gamma scale 5 gammas. The Scintrex MF series of magnetometers have been in use for many years in varied applications, e.g. ground reconnaissance, base station recording and monitoring, study of magnetic properties of rocks, observatory monitoring and recording of both vertical and horizontal components.

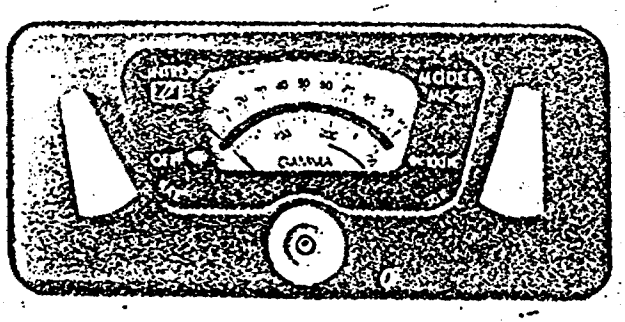
OPTIONAL

a) MF-2G

The MF-2G Fluxgate Magnetometer has the same electronics and specifications as the MF-2, but the sensor is detached and enclosed in a small cylindrical tube which permits it to be oriented and tilted in any desired direction. A 25 foot cable connects the sensor to the instrument housing. This version is particularly suitable for the study of the magnetic properties of rocks, and the measurement of magnetic field components of any orientation, etc.

b) MF-2GS

The MF-2GS Magnetometer again has the same electronics and specifications as the MF-2 but has two sensors, the enclosed self-levelling sensor of the MF-2 as well as the detached geoprobe of the MF-2G, either one of which can be employed at any one time. Thus, this instrument can be employed as the standard MF-2 as well as for vertical gradient measurements, and for the determination of the magnetic properties of rocks, etc.



SPECIFICATIONS OF FLUXGATE MAGNETOMETER MODEL MF-2

	RANGES	SENSITIVITY
Standard:	Plus or minus	
	1,000 gammas f.sc.	20 gammas/div.
	3,000 gammas f.sc.	50 gammas/div.
	10,000 gammas f.sc.	200 gammas/div.
	30,000 gammas f.sc.	500 gammas/div.
	100,000 gammas f.sc.	2000 gammas/div.
Optional:	100 gammas f.sc.	2 gammas/div.
	300 gammas f.sc.	5 gammas/div.

Meter: Taut-band suspension
100 gamma scale 2.1" long — 50 div.
300 gamma scale 1.9" long — 60 div.

Accuracy: 1000 to 10,000 gamma ranges ±0.5% of full scale.

Operating Temperature: —40°C to +40°C
—40°F to +100°F

Temperature Coefficient: Less than 1 gamma per °C (½ gamma/°F)

Noise Level: Less than 1 gamma P-P

Bucking Adjustments: (Latitude) —20,000 to +60,000 gammas
9 steps of 10,000 gammas plus fine control of 0 - 10,000 gammas by ten turn potentiometer. Reversible for southern hemisphere.

Recording Output: Optional.

Electrical Response: D.C. to 0.3 cps (3db down) on 1000 gamma range with meter in circuit. D.C. to 20 cps with meter network shorted for recording purposes.

Connector: Cannon KO2-16-10SN
for plug Cannon KO3-16-10-PN and cover KO6-16-⅜.

Batteries: Internal 3 x 6V-1 amp/hr. Sealed Lead Acid rechargeable Centralab GC 6101; recharge time 8 Hrs.

Consumption: 60 milliamperes — GC6101 batteries are rated for 16 hours continuous use.

Dimensions: 6¼"x 2¾"x 10" Instrument.
161 mm x 71 mm x 254 mm

Weights: 5 lb. 8 oz. — 2.5 kg.

Battery Charger: 6"x 2½"x 2½"
155 mm x 64 mm x 64 mm
110V - 220V 50/60 Hz supply or 28 - 42V D.C. supply
Automatic charge rate and cutoff preset for Centralab GC6101 batteries.

SCINTREX LIMITED
79 Martin Ross Avenue, Downsview, Ontario, Canada

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 Natural Resources
Ontario

Geotechnical Report Approval

File 2.5559

June 13/83

Mining Lands Comments

☑ To: Geophysics Mr. Barlow.

Comments

☑ Approved ☐ Wish to see again with corrections | Date Sept 1/83 | Signature

☐ To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Geochemistry

Comments

LD

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1983 06 02

2.5559

Mr. Wade Mathew
Mining Recorder
Ministry of Natural Resources
303 Robertson Street
Box 5160
KENORA, Ontario
P9N 3X9

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims K 589869 et al in the Area of Rowan Lake and Dogpaw Lake.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone 416/965-1380

cc: Canadian Nickel Company Limited
Copper Cliff, Ontario
P0M 1N0

Attn: G.J. Gereghty

A.Barr:eib

Canadian Nickel Company Limited

Copper Cliff • Ontario P0M 1N0

May 17, 1983

Mr. F.W. Matthews
Supervisor, Projects Section
Ministry of Natural Resources
Whitney Block, Queen's Park
Toronto, Ontario
M7A 1X1

Dear Mr. Matthews:

Enclosed is a geophysical (magnetometer and V.L.F. EM) report in duplicate being submitted under the Special Provisions Section as 60 days assessment work on each of the following 39 claims located in Area of Rowan Lake (M-2580) and Area of Dogpaw Lake (M-2585), Kenora Mining Division.

K 589869 - 895 incl.
K 589927 - 928
K 629451 - 456 incl.
K 629461 - 464 incl.

The report of work covering this submission was forwarded to Mr. W.S. Matthew in Kenora and subsequently recorded on March 24, 1983.

I trust that this report will be considered satisfactory by your department.

Yours truly,

W.V. Rodney

IM/cb

Enclosures:

File no. 5559

	Mag	EM
K589869	✓	✓
589870	✓	✓
871	✓	✓
872	✓	✓
873	✓	✓
874	✓	✓
875	✓	✓
876	✓	✓
877	✓	✓
878	✓	✓
879	✓	✓
880	✓	✓
881	✓	✓
882	✓	✓
883	✓	✓
884	✓	✓
885	✓	✓
886	✓	✓
887	✓	✓
888	✓	✓
889	✓	✓
890	✓	✓
891	✓	✓
892	✓	✓
893	✓	✓
894	✓	✓
895	✓	✓
927	✓	✓
928	✓	✓
629451	✓	✓
452	✓	✓
453	✓	✓
454	✓	✓
455	✓	✓
456	✓	✓
461	✓	✓
462	✓	✓
463	✓	✓
464	✓	✓

39 claims

ATIKWA LAKE (GRAPNEL BAY) M.2629

DOGPAW LAKE M.2585

LAWRENCE LAKE M.2579

BROOKS LAKE M.2473

ROWAN LAKE

AREA OF

ROWAN LAKE

DISTRICT OF
KENORA

KENORA
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C
PATENTED S.R.O.	

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. MINING RIGHTS ONLY
S.R.O. SURFACE RIGHTS ONLY
M.+S. MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
a) SEC 36/80	W.16/83	28/6/83	M.&S.	180521

DATE OF ISSUE
SEP 16 1983
Ministry of Natural Resources
TORONTO

NATIONAL TOPOGRAPHIC SERIES 52F5

PLAN NO. M.2580

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

493933

M-2580

LOBSTICK BAY M.2635

HERONRY LAKE M.2475

ROWAN LAKE M.2580

AREA OF

DOGPAW LAKE

DISTRICT OF KENORA

KENORA MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

		staking under Section 43 R.S.	
		Date	Disposition
(S)	163473	1 Mar. '72	surface & mining rights

TWEEDSMUIR TWP.
FOR STATUS REFER TO TWP. PLAN No. M-2023

PHILLIPS TWP.
FOR STATUS REFER TO TWP. PLAN No. M-2102

Whitefish Bay I. R. No. 34A

No. 33A I. R.

Wapus Lake

Dogpaw Lake

Corbett Lake

Scott Bay

Jessie Lake

Little Stephen Lake

Emm Bay

Peninsula Bay

Kokagi Lake

Mongus L.

DATE OF ISSUE
SEP 16 1983
Ministry of Natural Resources
TORONTO

NATIONAL TOPOGRAPHIC SERIES 52 F 5

PLAN NO. M.2585

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

493934

52F5SE0189 2.5559 ROWAN LAKE

210

K 629464

K 629454

K 629453

K 629455

K 629456

K 629452

K 589883

K 589884

K 589885

K 589886

K 589887

K 589893

L A K E

2500 N

2050 N B/L

2000 N

1500 N

1200 N B/L

2500 W

2000 W

1500 W

1000 W

LEGEND

.1560 Station location and magnetometer reading in gammas

0,5000,10,000 gamma contour

1000 gamma contour

200 gamma contour

Relative magnetic low area

Contour Interval - 200 Gammas

Station Interval - 12.5 Metres

VLF E.M. Conductor

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6	3	
7	4	1
	5	2

N

Canadian Nickel Company Limited — Copper Cliff, Ontario — POM 1NO

MAGNETIC SURVEY 2.5559

SHEET 1 OF 7

FIGURE 4

Project CAMERON LAKE PROJECT — Area CAVIAR LAKE, KENORA DISTRICT

Supervisor W. O. MANSON — Instrument Scintrex MF-1 No 21, MF-2 No 55 — Survey date: Feb - Mar 83

Compiled by J. Roque, I. McCaskill, B. Satchelle, W. Manson — Drawn by RMK — Date drawn April / 85 — Revised:

Scale 1 : 2500 — File — N.T.S. 52 F / 5

A. D. Ainsworth

K 589883

K 589882

K 589881

K 589890

K 589888

K 589889

K 589891

K 589892

K 589893

K 589894

K 589895

B O G B A Y

C A M E R O N L A K E

1000 N

800 N B/L

500 N

3000 W

2500 W

2000 W

1500 W

1000 W

0

LEGEND

.7540 Station location and magnetometer reading in gammas

0,5000,10,000 gamma contour

1000 gamma contour

200 gamma contour

Relative magnetic low area

Contour interval – 200 Gammas

Station interval – 12.5 Metres

VLF EM Conductor

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6	3	
7	4	1
	5	2

Canadian Nickel Company Limited — Copper Cliff, Ontario POM 1NO

MAGNETIC SURVEY 2 5559 — SHEET 2 OF 7 — FIGURE 4

Project: CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON — Instrument: Scintrex MF-1 No. 21, MF-2 No. 55 — Survey date: Feb - Mar/83

Compiled by: J. Roque, I. McCaskill, B. Satchelle, W. Manson — Drawn by: RMK — Date drawn: April/83 — Revised:

Scale: 1:2500 — File: — N.T.S. 52 F/5

A. L. Arighi

52F05SE0189 2.5559 ROWAN LAKE

4000 N

3500 N

3000 N

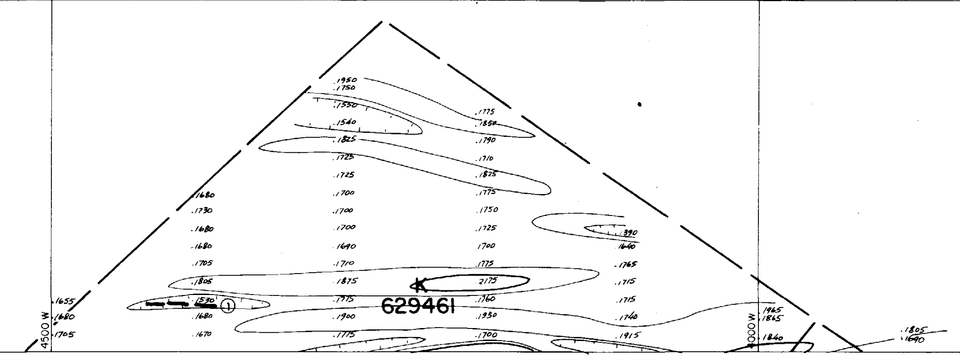
5500 W

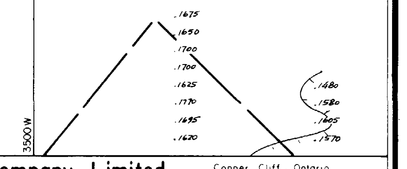
5000 W

4500 W

4000 W

3500 W





LEGEND

- 2540 — Station location and magnetometer reading in gammas
- 0,5000,10,000 gamma contour
- 1000 gamma contour
- 200 gamma contour
- Relative magnetic low area
- Contour Interval – 200 Gammas
- Station Interval – 12.5 Metres
- VLF EM Conductor

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6	3	
7	4	1
	5	2

N

Canadian Nickel Company Limited — Copper Cliff, Ontario — POM NO.

MAGNETIC SURVEY — 25559 — SHEET 3 OF 7 — FIGURE 4

Project CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor W.O. MANSON — Instrument Scintrex MF-1 No. 21, MF-2 No. 53 — Survey date Feb - Mar /83

Compiled by J. Roque, I. Mc Caskill, B. Satchalle, W. Manson — Drawn By RMK — Date drawn April / 83 — Revised

Scale 1:2500 — File — N.T.S. 52 F/5

A. Y. Ansley

K 629461

K 629462

K 629464

K 589928

K 589927

K 589871

K 629463

K 589926

K 589870

K 589872

K 629454

K 589869

K 589873

K 589877

K 589874

K 589876

K 589878

L A K E

S T E P H E N

CAMP

5500 W

5000 W

4500 W

4000 W

3500 W

2500 N

2000 N

1500 N

1200 N B/L

2050 N B/L

3450 N B/L

LEGEND

.2560 Station location and magnetometer reading in gammas

0,5000,10,000 gamma contour

1000 gamma contour

200 gamma contour

Relative magnetic low area

Contour Interval – 200 Gammas

Station Interval – 12.5 Metres

VLF EM Conductor

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6 3 7 4 5 2

Canadian Nickel Company Limited — Copper Cliff, Ontario

MAGNETIC SURVEY — 2555 9

SHEET 4 OF 7 — FIGURE 4

Project CAMERON LAKE PROJECT — Area CAVIAR LAKE, KENORA DISTRICT

Supervisor W.O. MANSON — Instrument Scintrex MF-1 No. 21, MF-2 No. 55 — Survey date Feb – Mar / 83

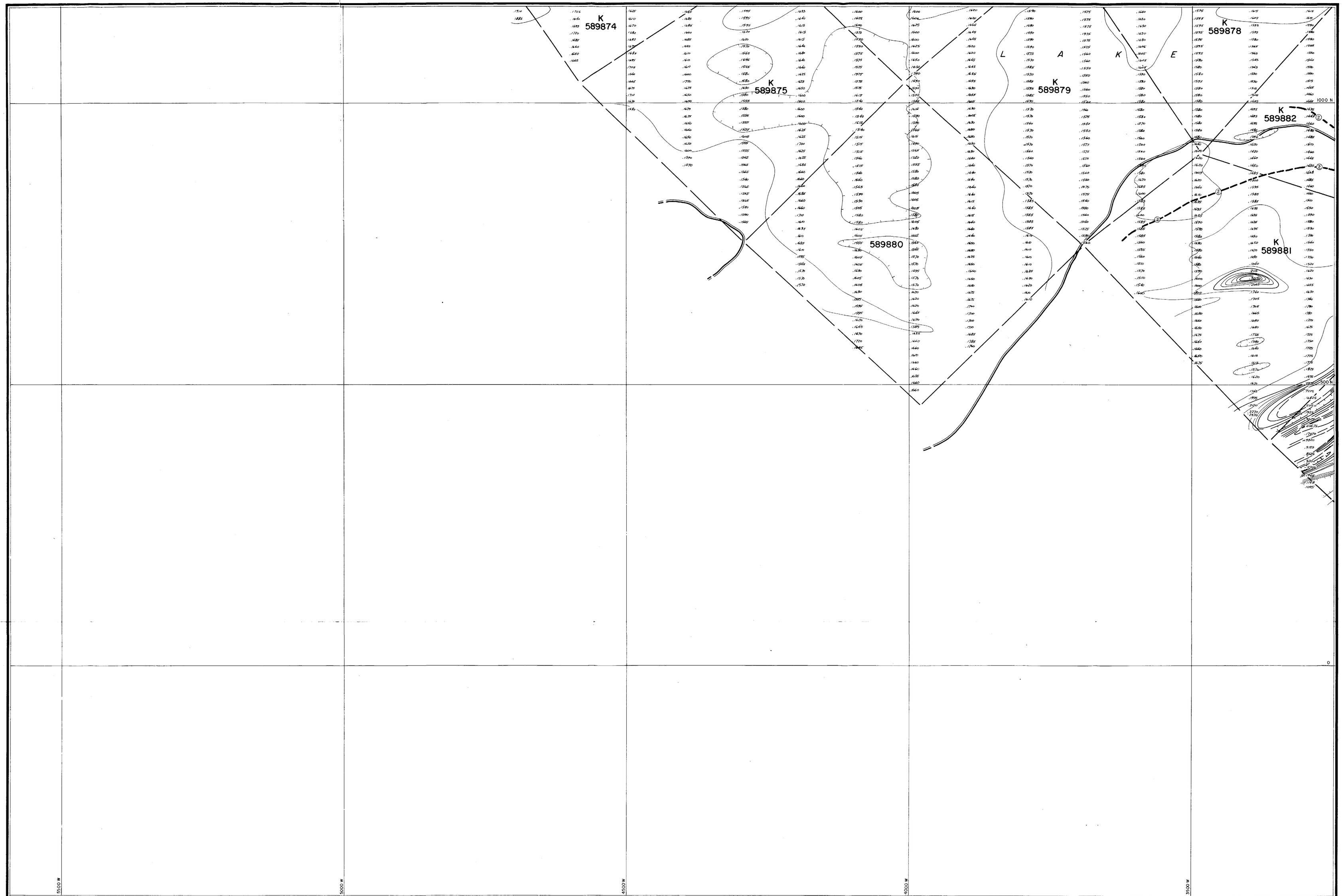
Compiled by J. Roque, I. Mc Caskill, B. Satchelle, W. Manson — Drawn by RMK — Date drawn April / 83 — Revised

Scale 1 : 2500 — File — NTS 52 F/5

52F05SE0109 2.5559 ROWAN LAKE

250

A.Y. Almighty



LEGEND

- Station location and magnetometer reading in gammas
- 0, 5000, 10,000 gamma contour
- 1000 gamma contour
- 200 gamma contour
- Relative magnetic low area
- Contour interval – 200 Gammas
- Station interval – 12.5 Metres
- VLF EM Conductor

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6	3	
7	4	1
	5	2

Canadian Nickel Company Limited — Copper Cliff, Ontario — POM 1NO

MAGNETIC SURVEY 25559

SHEET 5 OF 7 — FIGURE 4

Project: CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON — Instrument: Scintrex MF-1 No.21, MF-2 No.53 — Survey date: Feb – Mar/83

Compiled by: J. Roque, I. Mc Caskill, G. Satchelle, W. Monson — Drawn by: RMK — Date drawn: April/83 — Revised:

Scale: 1:2500 — File: — N.T.S. 52 F/5

A. L. Brophy.

K 629464

K 629456

K 629455

K 629451

K 629454

K 629452

K 589885

K 589886

K 629453

K 589884

K 589887

K 589883

K 589893

L A K E

2500 N

2050 N B/L

2000 N

1500 N

1200 N B/L

3000 W

2500 W

2000 W

1500 W

1000 W

PROFILE SCALE
L 30° 20 10 0 10 20 30°

LEGEND

NSS Transmitter station location (Annapolis Maryland)

21.4 Hz Transmitter frequency

Survey station and Dip Angle plot (profile, L= left, R=right)

Profile Scale - 1cm = 10°

Cross-over location

Conductor Classification - Strong
Medium
Weak

Conductor Priority
(1) Bedrock conductor (shear, fault, sulphide)
(2) Superficial conductor (lake bottom, swamp, topographical slope)

SCALE
100 75 50 25 0 100
METRES

SHEET INDEX

6	3	
7	4	1
	5	2

Tx NSS 21.4 Hz

Canadian Nickel Company Limited — Copper Cliff, Ontario POM 1NO

VLF E.M. SURVEY 25559

SHEET 10F7 FIGURE 5

Project: CAMERON LAKE PROJECT Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON | Instrument: Crone Radem VLF EM. | Survey date: Feb - Mar / 83

Compiled by: B Satchelle, L Fransen | Drawn by: RMK | Date drawn: April / 83 | Revised:

Scale: 1 : 2500 | File: | N.T.S. 52 F/5

A.G. Ampleby.

52F05SE0189 2.5559 ROWAN LAKE

K 589883

K 589888

K 589893

K 589882

K 589889

K 589892

K 589895

K 589881

K 589891

K 589890

K 589894

1000 N

800 N B/L

500 N

3000 W

2500 W

2000 W

1500 W

1000 W

0

PROFILE SCALE
L 30° 20 10 0 10 20 30° R

Tx. NSS 21.4 Hz

LEGEND

N.S.S. Transmitter station location (Annapolis Maryland)

21.4 Hz Transmitter frequency

Survey station and Dip Angle plot (profile, L = left, R = right)

Profile Scale - 1 cm = 10°

Cross-over location

Conductor Classification - Strong
Medium
Weak

Conductor Priority

① Bedrock conductor (shear, fault, sulphide)

② Superficial conductor (lake bottom, swamp, topographical slope)

SCALE
100 75 50 25 0 100
METRES

SHEET INDEX

6	3	
7	4	1
	5	2

Canadian Nickel Company Limited — Copper Cliff, Ontario — POM 1NO

VLF E.M. SURVEY — 25559 — SHEET 2 OF 7 — FIGURE 5

Project: CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON — Instrument: Crone Radem VLF EM — Survey date: Feb - Mar / 83

Compiled by: B. Satchelle, L. Fransen — Drawn by: RMK — Date drawn: April / 83 — Revised:

Scale: 1 : 2500 — File: — N.T.S. 52 F / 5

A. G. Knight

4000N

3500N

3000N

5500W

5000W

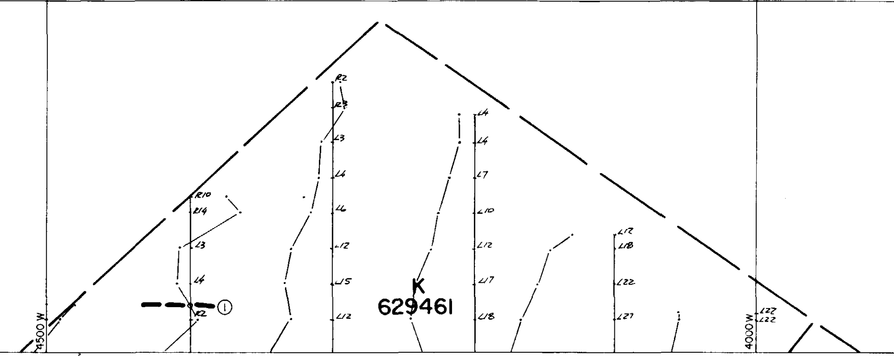
4500W

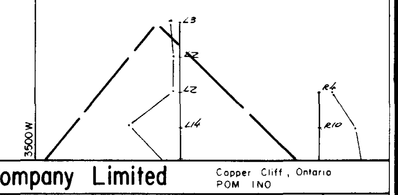
4000W

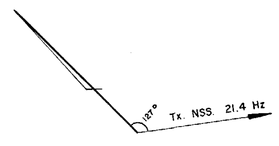
3500W

PROFILE SCALE

L 30° 20 10 0 10 20 30° R







LEGEND

NSS. Transmitter station location (Annapolis Maryland)

21.4 Hz. Transmitter frequency

Survey station and Dip Angle plot (profile, L= left, R= right)

Profile Scale - 1cm = 10°

Cross-over location

Conductor Classification - Strong
Medium
Weak

Conductor Priority

① Bedrock conductor (shear, fault, sulphide)

② Superficial conductor (lake bottom, swamp, topographical slope)

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6		
7	4	1
	5	2

Canadian Nickel Company Limited — Copper Cliff, Ontario POM 1NO

VLF E.M. SURVEY 25559

SHEET 30F7 — FIGURE 5

Project: CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON — Instrument: Crone Radem VLF EM — Survey date: Feb - Mar/83

Compiled by: B. Satchelle, L. Fransen — Drawn by: RMK — Date drawn: April/83 — Revised:

Scale: 1:2500 — File: — N.T.S. 52 F/5

A. G. Knight

K 629461

K 629462

K 629464

K 589928

K 589927

K 589871

K 629463

K 589926

K 589870

K 589872

K 629454

K 589869

K 589873

K 589877

K 589874

K 589876

K 589878

L A K E

S T E P H E N

2450 N B/L

2050 N B/L

1200 N B/L

2500 N

2000 N

1500 N

5500 W

5000 W

4500 W

4000 W

3500 W

CAMP

PROFILE SCALE

L 30° 20 10 0 10 20 30° R

Tx. NSS 21.4 Hz.

LEGEND

NSS 21.4 Hz. — Transmitter station location (Annapolis, Maryland)

Transmitter frequency

Survey station and Dip Angle plot (profile, L= left, R= right)

Profile Scale - 1 cm = 10°

Cross-over location

Conductor Classification — Strong, Medium, Weak

Conductor Priority

① Bedrock conductor (shear, fault, sulphide)

② Superficial conductor (lake bottom, swamp, topographical slope)

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6	3	
7	4	1
	5	2

N

Canadian Nickel Company Limited — Copper Cliff, Ontario POM 1NO

VLF E.M. SURVEY 25559

SHEET 4 OF 7 — FIGURE 5

Project: CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON — Instrument: Crone Radam VLF EM — Survey date: Feb.-Mar./83

Compiled by: B. Satchelle, L. Fransen — Drawn by: R.M.K. — Date drawn: April /83 — Revised:

Scale: 1:2500 — File: — N.T.S. 52 F/5

A. Y. Knight

K 589874

K 589875

589880

L A K E

K 589878

K 589879

K 589882

K 589881

1000 N

500 N

0

5500 W

5000 W

4500 W

4000 W

3500 W

PROFILE SCALE

L 30° 20° 10° 0 10° 20° 30° R

Tx. NSS. 21.4 Hz

LEGEND

N.S.S 21.4 Hz — Transmitter station location (Annapolis Maryland)

Transmitter frequency

Survey station and Dip Angle plot (profile, L= left, R= right)

Profile Scale - 1 cm = 10°

Cross-over location

Conductor Classification - Strong, Medium, Weak

Conductor Priority

① Bedrock conductor (shear, fault, sulphide)

② Superficial conductor (lake bottom, swamp, topographical slope)

SCALE

100 75 50 25 0 100

METRES

SHEET INDEX

6	3	
7	4	1
	5	2

Canadian Nickel Company Limited — Copper Cliff, Ontario POM 1NO

VLF E.M. SURVEY 2.5559

SHEET 5 OF 7 — FIGURE 5

Project: CAMERON LAKE PROJECT — Area: CAVIAR LAKE, KENORA DISTRICT

Supervisor: W.O. MANSON — Instrument: Crone Radam VLF EM — Survey date: Feb - Mar/83

Compiled by: B. Satchelle, L. Fransen — Drawn by: RMK — Date drawn: April/83 — Revised:

Scale: 1:2500 — File: — N.T.S. 52 F/5

A.L. Ansley