Scintillometer Survey Report

Knox Syndicate Claims

Area of Atikwa Lake - M-2629

District of Kenora

N.T.S. 52 F 5

RECEIVED

JAN 17 1985

MINING LANDS SECTION
Scintillometer Survey Report

Knox Syndicate Claims

Area of Atikwa Lake - M-2629

District of Kenora

N.T.S. 52 F 5

Property

The property consists of a contiguous group of 40 claims only 4 of which are
being reported on for partial scintillometer survey coverage.

Claims K744571 to 574 inclusive

Location

The four claims involved in this report cover the north and west parts of
a flooded swamp area at the extreme northeast end of Caviar Lake.
Ref: Location map enclosed.

Access

Best access is by fixed wing aircraft from Nestor Falls which is roughly 37
kilometres distant. The Maybrun Mine access road is currently being improved
to all weather status and this road passes to the south of Rupert Lake roughly
one kilometre north of the subject claims.

Previous Work

The area was first mapped by R. Bell in 1883 and no doubt prospecting for
gold was done in the area even before that date. In the 1930's the general
area was thoroughly prospected for gold using the pick and shovel method of
that era. The period of the A.E.M. survey from 1950 to 1970 caused a new flurry
of prospecting activity in search of base metals. Considerable work was done
throughout the region involving geological-geophysical surveys, with follow-up
diamond drilling. Ref: "Geological Report 111 - Geology of the Atikwa Lake
Area by J.C. Davies".

More specifically, the "Knox" property was gridded and surveyed electromag-
netically by Maybrun Mines Limited in 1969. No anomalies of drilling interest
were found.

Object of Survey

The scintillometer survey was conducted as a geological mapping tool princi-
pally to delineate zones of feldspar-porphyry which are often gold bearing.
Scintillometer Survey Procedure

The instrument used was an Exploranium GR-101A gamma ray scintillometer with sodium iodide crystal detector measuring 1.5 inch diameter x 1.5 inch thickness for a total volume of 2.65 cubic inches.

This scintillometer was carried at waist level attached to the operator's belt. A specially designed high visibility 250 meter at the top end of this instrument features a calibrated range from 0 to 100/300 counts per second (C.P.S.) with a five position range expander switch that allows full-scale indications from 100 to 10,000 C.P.S. On the more sensitive scale settings, the meter exhibits fast response to changes in radiation; on the coarse settings a more dampened response portrays meaningful data in a variety of field situations. This instrument has been factory calibrated to display total counts per second of all energies in excess of 0.05 Mev.

Survey readings were recorded in the 100 C.P.S. instrument range at 25 metre station intervals along 100 metre spaced grid lines.

Survey Data

Grid line cutting and chaining was contracted to S.D.F. Exploration Services of Kenora, Ontario who cut the grid in late October, 1984.

During the period October 30th to November 2nd, 1984 two Canadian Nickel Company employees conducted the scintillometer survey.

Supervisor in charge of the survey work was:

Alan Aubut
Canadian Nickel Company Limited
105 North May Street
P.O. Box 1120, Station F
THUNDER BAY, Ontario
P7C 4Y1

Total base line cut and chained 1.0 km
Total grid line cut and chained 3.5 km
Total number of scintillometer readings 163

Survey Results

Radiometric survey results are plotted on a single plan at a scale of 1:2500. Gamma ray counts per second are plotted in profile form at a scale of 1 cm = 50 cps.

One very weak but definite anomalous zone strikes NE-SW across the southeast parts of claims K744573 & 574. Using some imagination one can project two or three parallel very weak anomalous zones through the east half of the gridded area.
Conclusions

The very weak radio-active anomaly outlined may be caused by a band of felsic volcanic rock. Geological mapping will be required to prove the validity of the scintillometer survey as a mapping tool.

G.J. Gereghty
December 13, 1984
FORT KNOX
GOLD
(Atikwa L.)

Canadian Nickel Company Limited
FORT KNOX GOLD RESOURCES INC.
(Atikwa L. – Code Twp. Claim Groups)
Location Map
SCALE 1:250000 Figure 1
Mining Lands Section

Control Sheet

File No 27667

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:

- check with 28816
- hold until mag survey submitted
- no surcep map coming - do not allow lab expenses after mag received

[Signature]

RECEIVED

July 2016

MINING LANDS SECTION

[Signature]

Signature of Assessor

85-01-18

Date
Canadian Nickel Company Limited
Copper Cliff • Ontario P0M 1NO

VIA COURIER
January 14, 1985

Mr. F. W. Matthews
Supervisor, Projects Section
Ministry of Natural Resources
Room 6450
Whitney Block, Queen's Park
Toronto, Ontario
M7A 1X1

Dear Mr. Matthews:

Enclosed are two Geophysical reports in duplicate being submitted under the Special Provisions Section as assessment work on the following two claim groups located in the Area of Atikwa Lake (G-2603) and Code Twp. (M 1962).

Code Twp.
K 744432-34 incl.  )
K 744436-37  ) Mag & Scintillometer
K 744558-65 incl.  )

Area of Atikwa Lake
K 744571-74 incl.  Scintillometer

Reports of work covering these two groups of claims were forwarded to Mrs. M. E. Lemay in Kenora and subsequently recorded on November 20, 1984.

I trust these two reports will be considered satisfactory by your department.

Yours truly

W. V. Rodney
Exploration Department

Enclosure:

IM/nk

Exploration subsidiary of
INCO LIMITED
Dear Sirs,

William T. Knox recorded 40 days Radiometric assessment work credits on each of Mining Claims K 744571 to 574 inclusive on December 18, 1984.

Additional information has been requested from the claim holder and not submitted.

You are hereby authorized to delete the work credits recorded on December 18, 1984 from each of the claim record sheets. Please inform the recorded holder accordingly.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-4888

S. Hurst:mc

cc: William T. Knox
Suite 1300
33 Yonge Street
Toronto, Ontario
M5E 1T1

cc: Canadian Nickel Company Limited
Copper Cliff, Ontario
POW 1NO
Resident Geologist
Ministry of Natural Resources
Box 5160
Kenora, Ontario
P9N 3X9

Dear Sir:

RE: Geophysical (Radiometric) Survey
    on Mining Claims K 744571, to 574
    inclusive in the Area of Atikwa Lake

The enclosed file has not been assessed as all the necessary information was not submitted.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

S. Hurst

cc: Mining Recorder
   Kenora, Ontario

Encl.
William T. Knox  
Suite 1300  
33 Yonge Street  
Toronto, Ontario  
M5E 1T1

Dear Sir:

RE: Geophysical (Radiometric) Survey submitted  
on Mining Claims K 744571, et al. in the  
Area of Atikwa Lake

Enclosed is a copy of our letter dated January 29, 1985  
requesting additional information for the above-mentioned  
survey.

Unless you can provide the required data by April 29, 1985,  
I will have no other alternative but to instruct the  
mapping recorder to cancel the work credits recorded on  
December 18, 1984.

For further information, please contact Mr. Ray Pichette  
at (416)965-4888.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone:(416)965-4888

S. Hurst:mc

cc: Mining Recorder  
Kanora, Ontario  
File: #280-84

cc: Canadian Nickel Company Limited  
Copper Cliff, Ontario  
P0M 1NO

Encl.
January 24, 1985

William T. Knox
Suite 1300
33 Yonge Street
Toronto, Ontario
M5E 1T1

Dear Sir:

RE: Geophysical (Radiometric) Survey submitted on Mining Claims K 744571, et al, in the Area of Atikwa Lake

This will acknowledge receipt of the above-described survey on January 17, 1985. Please submit (in duplicate) an outcrop map to accompany the radiometric plan, quoting file 2.7667.

For further information, please contact Susan Hurst at (416)965-4888.

Yours truly,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1N3
Phone: (416)965-4888

S. Hurst:mc

cc: Mining Recorder
Kenora, Ontario

cc: Canadian Nickel Company Limited
Copper Cliff, Ontario
PO Box 1N0
The Mining Act

Ministry of Natural Resources
Ontario

Ontario Report of Work
(geophysical, geological,
geochemical and expenditures)

Geophysical (Scintillometer)

Claim Holder(s):
William T. Knox

Address:
#1300 33 Yonge Street, Toronto, Ontario, M5E 1T1

Survey Company:
Canadian Nickel Company Limited

Name and Address of Author (of Geo Technical report):
Alan Aubut, c/o Canadian Nickel Company Limited, Copper Cliff, Ontario P0M 1NO

Date of Survey (from & to):
30 10 84 to 02 11 84

Total Miles of line Cut:
6.1 km

Geophysical (Scintillometer)

Special Provisions:

For first survey:
Enter 40 days. (This includes line cutting)

For each additional survey:
using the same grid:
Enter 20 days (for each)

Canadian Nickel Company Limited

Name and Address of Author (of Geo Technical report):
Alan Aubut, c/o Canadian Nickel Company Limited, Copper Cliff, Ontario P0M 1NO

Credits Requested per Each Claim in Columns at right

Calculation of Expenditure Days Credits

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

Date:
Dec. 11, 1984

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:
I.D. McCaskill, c/o Canadian Nickel Company Limited, Copper Cliff, Ontario P0M 1NO

Date Certified:
Dec. 11, 1984

Certified by (Signature):
I.D. McCaskill
c/o Canadian Nickel Company Limited, Copper Cliff, Ontario P0M 1NO

Date Approved:
Dec. 11, 1984

Branch Director:
I.D. McCaskill
4/4/571

12  1/4
12  1/4
14  V
1.25

4 x 40 = 160
160 ÷ 5 = 32
160 ÷ 5 = 320

2.7667
**Ontario Ministry of Natural Resources**

**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 (Radiometric)

**Township or Area:** Area of Atikwa Lake (G-2603)

**Claim Holder(s):**
- William T. Knox, #1300 33 Yonge St.
- G.J. Gereghty, c/o Canadian Nickel Company Limited

**Survey Company:** Canadian Nickel Company Limited

**Author of Report:** G.J. Gereghty, c/o Canadian Nickel Company Limited

**Address of Author:** Limited, Copper Cliff, Ont. P0M 1NO

**Covering Dates of Survey:** Oct. 30 - Nov. 2, 1984

**Total Miles of Line Cut:** 6.1 km

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**SPECIAL PROVISIONS**

**CREDITS REQUESTED**

<table>
<thead>
<tr>
<th>Geophysical</th>
<th>DAYS per claim</th>
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<tbody>
<tr>
<td>Electromagnetic</td>
<td>40</td>
</tr>
<tr>
<td>Radiometric</td>
<td>40</td>
</tr>
<tr>
<td>Other</td>
<td>40</td>
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**MINING CLAIMS TRAVERSED**

**List numerically**

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<thead>
<tr>
<th>(prefix)</th>
<th>(number)</th>
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<tbody>
<tr>
<td>K</td>
<td>744571</td>
</tr>
<tr>
<td>K</td>
<td>744572</td>
</tr>
<tr>
<td>K</td>
<td>744573</td>
</tr>
<tr>
<td>K</td>
<td>744574</td>
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</tbody>
</table>

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

- Magnetometer
- Electromagnetic
- Radiometric

**DATE:** Jan. 15, 1985

**SIGNATURE:** [Signature]

Author of Report or Agent

---

**Res. Geol.**

**Qualifications**

---

**Previous Surveys**

<table>
<thead>
<tr>
<th>File No.</th>
<th>Type</th>
<th>Date</th>
<th>Claim Holder</th>
</tr>
</thead>
</table>

---

**TOTAL CLAIMS:** 4
**GEOPHYSICAL TECHNICAL DATA**

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

<table>
<thead>
<tr>
<th>Number of Stations</th>
<th>Number of Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>163</td>
<td>163</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station interval</th>
<th>Line spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 metres</td>
<td>100 metres</td>
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</table>

<table>
<thead>
<tr>
<th>Profile scale</th>
<th>Contour interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cm = 50 c.p.s.</td>
<td></td>
</tr>
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**MAGNETIC**

<table>
<thead>
<tr>
<th>Instrument</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Accuracy — Scale constant</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Diurnal correction method</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Base Station check-in interval (hours)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Base Station location and value</th>
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</thead>
</table>

**ELECTROMAGNETIC**

<table>
<thead>
<tr>
<th>Instrument</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Coil configuration</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Coil separation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Method:</th>
<th>[□] Fixed transmitter</th>
<th>[□] Shoot back</th>
<th>[□] In line</th>
<th>[□] Parallel line</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Frequency</th>
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</table>

(specify V.L.F. station)

<table>
<thead>
<tr>
<th>Parameters measured</th>
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</thead>
</table>

**GRAVITY**

<table>
<thead>
<tr>
<th>Instrument</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Scale constant</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Corrections made</th>
</tr>
</thead>
</table>

| Base station value and location |

**Elevation accuracy**

**INDUCED POLARIZATION**

<table>
<thead>
<tr>
<th>Instrument</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Method</th>
<th>[□] Time Domain</th>
<th>[□] Frequency Domain</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Parameters — On time</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off time</td>
<td>Range</td>
</tr>
<tr>
<td>Delay time</td>
<td></td>
</tr>
<tr>
<td>Integration time</td>
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</table>

**Power**

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<tr>
<th>Electrode array</th>
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<table>
<thead>
<tr>
<th>Electrode spacing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Type of electrode</th>
</tr>
</thead>
</table>
SELF POTENTIAL
Instrument ___________________________________________ Range ___________________________
Survey Method ____________________________________________
Corrections made __________________________________________

RADIOMETRIC
Instrument Exploranium GR1 101A
Values measured Counts per second - gamma
Energy windows (levels) N/A
Height of instrument 3 feet Background Count 12 c.p.s.
Size of detector 1.5" x 1.5"
Overburden Shallow - sandy
(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.

<table>
<thead>
<tr>
<th>Total Number of Samples</th>
<th>Type of Sample: (Nature of Material)</th>
<th>Average Sample Weight</th>
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</table>

<table>
<thead>
<tr>
<th>Method of Collection</th>
<th>Soil Horizon Sampled</th>
<th>Horizon Development</th>
<th>Sample Depth</th>
</tr>
</thead>
<tbody>
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<table>
<thead>
<tr>
<th>Terrain</th>
<th>Drainage Development</th>
<th>Estimated Range of Overburden Thickness</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

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

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis.

<table>
<thead>
<tr>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>
CONTOUR INTERVAL - 5 CPS

NOTE: CONTOUR INTERVAL - 5 CPS