

# GM 31928

MAGNETIC AND ELECTROMAGNETIC SURVEYS REPORTS

Documents complémentaires

*Additional Files*



Licence



*License*

Cette première page a été ajoutée  
au document et ne fait pas partie du  
rapport tel que soumis par les auteurs.

Énergie et Ressources  
naturelles

Québec 

MAGNETIC AND ELECTROMAGNETIC SURVEY REPORTS

DOUAY TOWNSHIP

ELECTORAL DISTRICT OF ABITIBI EAST

PROPERTY

Claims 348874, number 1, 2, 3, 4.

LOCATION

Approximately 30 miles south of Matagami on highway Number 61 (see sketch map).

PREVIOUS WORK

Quebec Matagami minerals worked 2 miles to west. Geophysical surveys Quebec Department of Mines file numbers P 12712, P 12713, P 12714 and diamond drilling S 12515-A.

OBJECT OF SURVEYS

The purpose of the magnetometer survey was to outline basic and ultrabasic rock types containing disseminated magnetic minerals such as magnetite and/or pyrrhotite, and also to locate sulphide concentrations with high pyrrhotite content in areas covered with overburden.

The electromagnetic survey was done to outline ground conductors that may represent heavily mineralized sulphide zones which could be either magnetic or non-magnetic.

MAGNETOMETER SURVEY (Procedure)

The instrument used is a Sharpe MF-1 fluxgate magnetometer which measures the vertical component of the earth's magnetic field directly in gammas, positive or negative, over a range of 100,000 gammas. This hand held magnetometer requires no orientation and after coarse levelling the magnetic reading is recorded from a meter mounted on the top of the instrument.

One magnetic base reference station was established at co-ordinates 00-00 on the grid base line. All of the magnetometer readings were taken in the 3000 gamma range and these readings have been corrected to the pre-established base reference station.

Ministère des Richesses Naturelles, Québec	
SERVICE DE LA	
DOCUMENTATION TECHNIQUE	
Date:	11 AOU 1976
No GM:	31928

### ELECTROMAGNETIC SURVEY (Procedure)

The equipment used is an Inco designed MK III, transistorized, battery operated, ground E.M. unit. The transmitter coil is quite large and is suspended in a vertical plane by an aluminum mast, and then formed into a triangular shape by placing a fifteen foot aluminum spreader bar horizontally across the base of this coil. This unit operates at 1,000 cps. The receiving equipment consists of a small circular coil with built in amplifier and detachable earphones. This coil is held in the horizontal plane while reading and it measures the dip of the total magnetic field through a process of null detection.

The survey procedure used is commonly called the "FAN" method. The transmitter remains at a fixed location while 400 foot grid lines are read across the geologic strike, usually on both sides of the transmitter setup. Readings are taken when the receiver is positioned along strike from the transmitter and this is generally attained by shouting back and forth and then pointing the transmitter coil at the receiver. Any conductor within range of the transmitter produces a secondary electromagnetic field distorting the primary field. This distortion is measured in terms of dip angles, in degrees, on a clinometer attached to the receiving coil. These angle readings indicate the direction to the source of the secondary field and a zero reading at the cross-over represents the axis of the conductor.

### SURVEY DATA

The investigation of anomaly 32E9E-1394 was carried out by four Canadian Nickel employees on February 22, 23, 1975.

Transportation was via truck on a daily basis from Matagami Quebec, 30 miles north on highway #61.

The baseline is well blazed but only partly cut out. Grid lines are also blazed pace and compass lines. Grid station co-ordinates are either marked on squared trees or on pickets where trees are sparse.

Magnetometer readings were taken at 100 ft. stations along the grid lines, however, 25 ft. stations were read over and adjacent to the conductors axis on each section line.

Electromagnetic readings were taken at station intervals of 100 ft.

Total baseline blazed	800 ft.
Total crossline blazed	3000 ft.
Total number of magnetic stations read	45
Total number of electromagnetic readings	55

MAGNETIC SURVEY RESULTS

Magnetic results are shown on the accompanying map which is on a scale of one inch equals 200 ft. Magnetic readings are plotted in gamma values relative to an arbitrary base station of 1625 gammas located at 4+00W/00 (Claim 3). Contour intervals are: 100 gammas in light solid lines.

The magnetic survey did not indicate any magnetic contrasts or anomalies.

ELECTROMAGNETIC SURVEY RESULTS

E.M. results are shown on an accompanying map on a scale of 1" = 200 ft. Readings are plotted in a profile form on a scale 1" = 20°. By noting the "T" number at the end of the lines one determines which E.M. transmitter set up the readings originate from. Note that left readings are plotted on the outside of the section line furthest from the respective transmitter position while right readings are plotted on the inside of the section line closest to the transmitter. Where E.M. readings cross the section line from right to left the axis of a conductor is shown as a heavy dashed or heavy solid line depending upon the strength of conductivity.

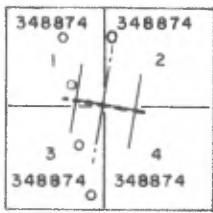
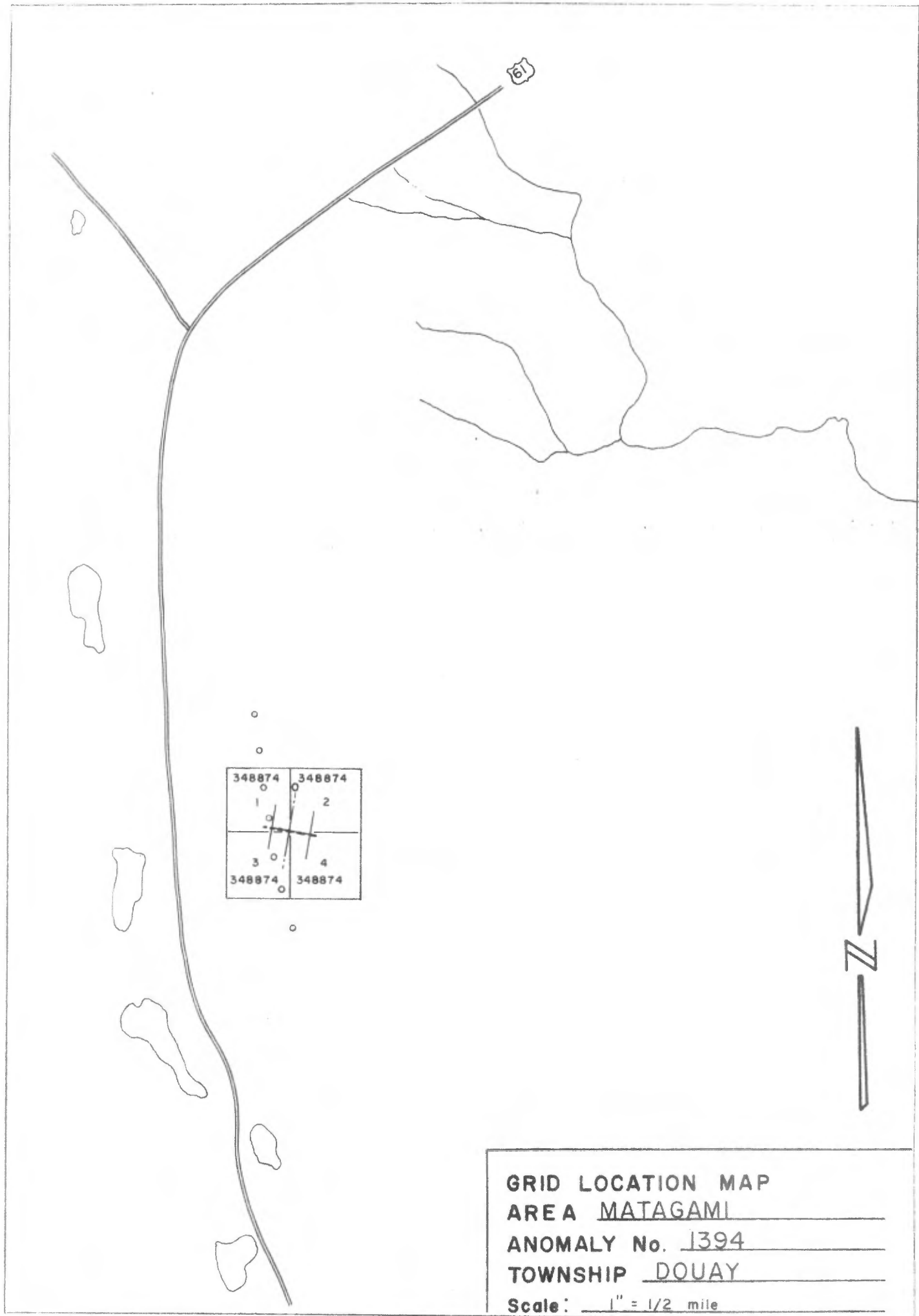
One 800 ft. long medium strength conductor was partly traced across the property striking @ 280°. The conductor may extend further east.

CONCLUSION

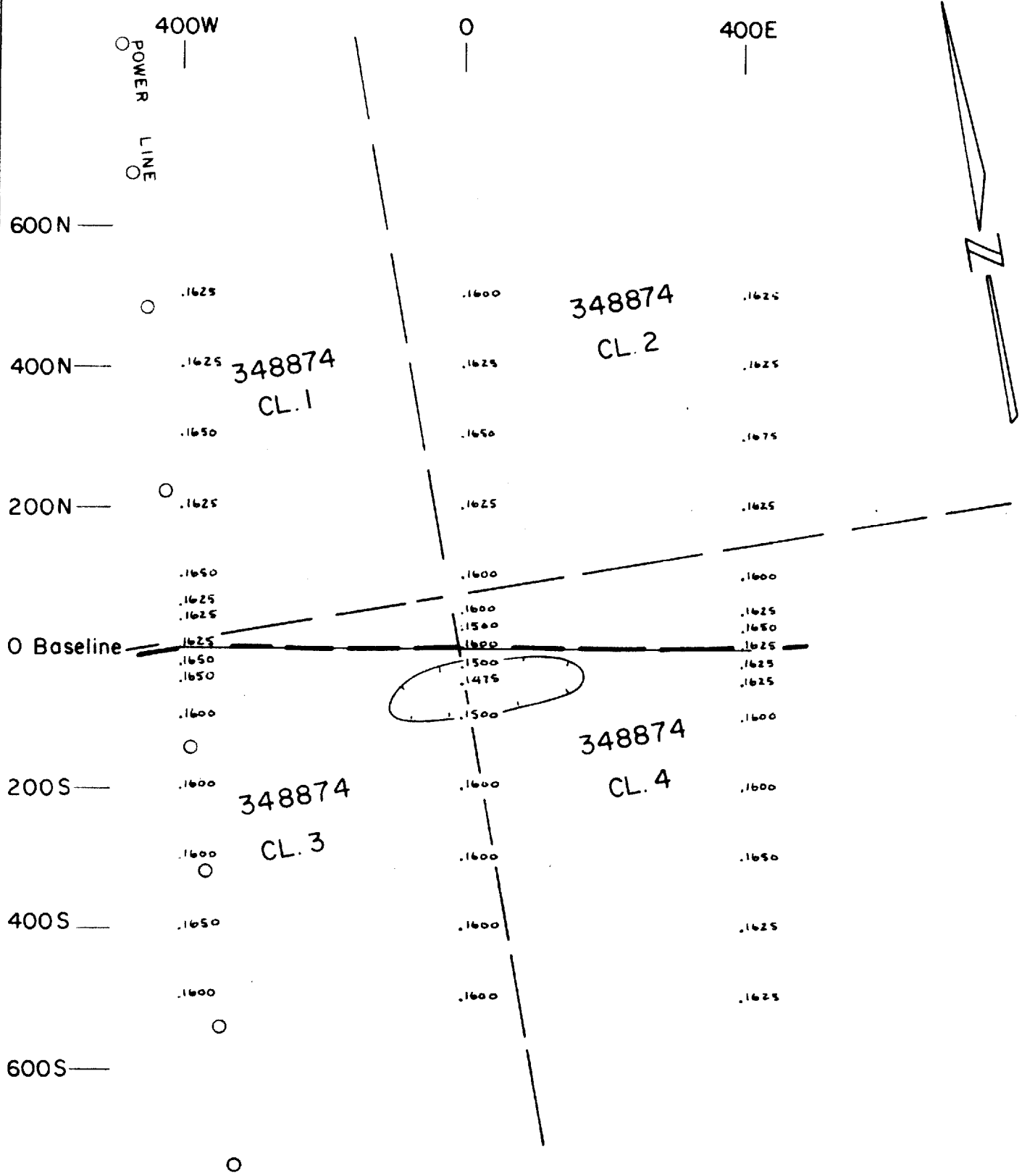
A diamond drill hole is recommended to test the conductor at 2E/1+75N drilling south.

*Blaine Webster*

B. Webster/nk  
March 9, 1976.



**GRID LOCATION MAP**  
**AREA** MATAGAMI  
**ANOMALY No.** 1394  
**TOWNSHIP** DOUAY  
**Scale:** 1" = 1/2 mile



MAGNETIC SURVEY  
 DOUAY TWP, QUEBEC  
 ANOMALY 32E 9E - 1394  
 MATAGAMI AREA

Scale 1" = 200'



CANADIAN NICKEL COMPANY LIMITED

FIELD PARTY PROJECT REPORT

Project Area	Matagami
Anomaly No.	1394
Best A.E.M. Response	5th.
No. of Responses	1

District and Province Abitibi East Quebec  
 Mining Division Amos Dates of Examinations Feb. 22, 23, 1975  
 Party Leader J. Luhta Assistants R.MacInnes, G.MacJanet(1 day),  
 Location Detail See sketch Township Douay Twp. B.McFarlane  
 Topography Flat, slight hill  
 Accessibility Truck and walking Overburden % 100  
 Timber 4"-8" Poplar, Spruce, Jack Pine Water Supply \_\_\_\_\_

Samples Collected

Field No.	"G" No.	Co-ords.	Description	Cu	Ni	S	Other

Supervision Remarks:

Geophysical Medium to weak conductor with no magnetic association. No foreign work around conductor. O.F.I. pending assessment of area.J.E.L.  
Medium conductor drill. B.K.

Geology \_\_\_\_\_

Drilling

D.D.H. No.	Co-ords.	Angle	Azimuth	Depth	Depth of O.B.	Explanation of Conductor	Footage From To	Drilled by

Project Status	Recommendations	Initials	Date
Drill		J.C.	



Geologist \_\_\_\_\_ Survey Dates \_\_\_\_\_

Assistant(s) \_\_\_\_\_

General Geology \_\_\_\_\_

Economic Geology \_\_\_\_\_

Geophysical Medium to strong conductor located with S.C.R. unit. Readings with S.C.R. were sharp. No magnetic association. No indications of foreign work.

Work Distribution

Name	No. of E.M. Readings	No. of Mag. Readings	Remarks
J. Luhta	55		
G. MacJanet			
R. MacInnes		45	
B. McFarlane			Pointed Coil

Conclusions Conductor warrants further evaluation.

Jack Luhta \_\_\_\_\_ Signature  
February, 1975 \_\_\_\_\_ Date

- NOTE: (1) In remarks re timber, water supply and accessibility the data required for planning a drilling program should be kept in mind.  
(2) Submit a map of the area showing traverse route, outcrops, strikes, dips, glaciation, location of samples, etc. Sample's number should be prefixed with the anomaly number.