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GROUND MAGNETOMETER SURVEY
AND
VLF EM 16 SURVEY
FOR

GORDON MAGEAU - RENE DUMONT PROPERTY

WHITESIDES \& MASSEY TOWNSHIPS

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

Timmins, Ontario
August, 1990
C. D. MacKenzie Consulting Geologist
Qual .63. 1225

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MAPS
(Back Pocket)
Map AMagnetic Survey1:2500
Map B VLF EM Survey ..... 1:2500

The following report describes the results of a ground magnetometer survey and VLF EM 16 survey for Gordon Mageau, Wallingford Road, Timmins, Ontario and Rene Dumont, 69 Bloor St., South Porcupine, Ontario.

The field work was completed August 17, 1990 and the report was completed on August 20, 1990.

PROPERTY LOCATION AND ACCESS

The Mageau - Dumont property is located in Whitesides and Massey Townships, Porcupine Mining Division, Ontario.

The property is accessible from the City of Timmins by fourwheel drive vehicles. The claim group can be reached by travelling West along Highway 101 for a distance of 20 miles, then turning right and travelling North along the Whitesides gravel road for a distance of eight miles to the southern boundary of the claim group.

PROPERTY DESCRIPTION

The property consists of 13 contiguous claims numbered as follows:

| 1116638 | 1116639 | 1116640 |
| :--- | :--- | :--- |
| 1116613 | 1116635 | 1116641 |
| 1116646 | 1116642 | 1116643 |
| 1116637 | 1116636 | 1116914 |

1116915

## LINE CUTTING

The grid was chained utilizing the metric system. Grid lines were established in an East-West direction at 100 metre intervals with pickets at 25 metre intervals.

The North-South baseline $0+00$ was established on line $8+00 S$ as required to control the grid. Lines were cut East-West from this baseline at 100 metre intervals as previously stated.

A total of 14.5 miles of picket lines were cut including one mile of baseline or a total of 23.33 kilometres.

GROUND MAGNETOMETER SURVEY

The ground magnetometer survey was completed utilizing a proton magnetometer Geometrix Model G-816 capable of reading total field values to an accuracy of $\pm 1$ gamma. Base stations were established along the baseline. Diurnal variation was corrected by tieing in to the base stations every 60 minutes.

A total of 1,452 readings were taken. The operator was Mike Caron of 229 Ruth St., South Porcupine, Ontario.

## VLF EM 16 ELECTROMAGNETIC SURVEY

The electromagnetic survey was carried out utilizing a Geonics EM 16, VLF EM receiver. The unit measures the vertical In-phase component (tangent of the tilt angle of the polarization ellipsoid) and the vertical Out-of-phase component (the short axis of the polarization ellipsoid compared to the long axis of the secondary field generated in the vicinity of the conductors).

## VLF EM 16 ELECTROMAGNETIC SURVEY Cont'd

The transmitter station used for the survey was NSS Annapolis with a frequency of 24.0 KHz . The azimuth to the station NSS is $150^{\circ}$. All readings were taken facing East.

A total of 875 readings were taken. The operator was Mike Caron of 229 Ruth St., South Porcupine, Ontario.

## PROPERTY GEOLOGY

The property geology is partially shown on the Preliminary Geology Map No. P-488 of Whitesides Township on a scale of 1 inch $=4$ mile.

The property is chiefly underlain by a complex intrusive ranging from a white anorthosite to a more mafic gabbro and lenses of ultramafic rocks. This intrusive covers in excess of a 100 square miles in Whitesides and Massey Townships.

A few North-South diabases are known to intrude the gabbro complex. Copper and nickel occurrences are present on the claim group under discussion.

A gravity high over the whole area appears to indicate ultramafic rocks at depth. Local magnetic highs are mostly due to disseminated pyrrhotite in various phases of the gabbro. Copper mineralization is also present within the mineralized zones both as disseminated chalcopyrite and small stringers of massive chalcopyrite.

The results of the magnetometer survey for the Mageau-Dumont property in Whitesides and Massey Townships are shown on a map in the back pocket of this report. The map is on a metric scale of $1: 2500$.

The major magnetic anomalies are designated on the map by the letters A to H inclusive.

ANOMALY A appears to be a North-South striking magnetic high caused chiefly by disseminated pyrrhotite in various phases of gabbro, although a narrow diabase dyke is suspected of being part of this magnetic feature, pits on high magnetic sections have shown mineralized zones of magnetic disseminated pyrrhotite in gabbro.

ANOMALY B is a North-South striking magnetic low between two magnetic highs.

ANOMALY $C$ is a highly magnetic North-South feature again suspected of being diabase.

ANOMALY $D$ is a large low between two North-South magnetic features $C$ and $E$.

ANOMALY E does not appear to be diabase and may be due to disseminated pyrrhotite in gabbro.

ANOMALY $F$ is also likely due to the presence of a mineralized gabbro or diorite.

ANOMALY $G$ is known to be outlining a narrow North-South striking diabase dyke.

## RESULTS OF THE GROUND MAGNETOMETER SURVEY COnt'd

ANOMALY $H$ appears to be shown on the geology map as a magnetic gabbro (undifferentiated). The presence of VLF conductors in this area trending North-South with this feature may indicate a number of mineralized zones within the gabbro complex.

## RESULTS OF THE VLF SURVEY

ANOMALY A is a 100 metre long VLF anomaly extending off the claim group to the North. This anomaly lies alongside of a weak magnetic high that may indicate disseminated pyrrhotite. A strong out-of-phase component is present.

ANOMALY B is a 700 metre long VLF anomaly open at both ends extending to the North of the present property and open to the South extending on to patented claim $\mathrm{P}-2474$.

ANOMALY B-1 is a weak 400 metre long VLF anomaly extending in to a magnetic high with a weak out-of-phase component.

ANOMALY B-2 is a weak VLF anomaly crossing a magnetic high and may be a branch of Anomaly C.

ANOMALY C is a weak VLF anomaly 1,000 metres in length and has very little out-of-phase. This anomaly may be outlining a buried valley in an area of low magnetics.

ANOMALY D is a weak VLF anomaly 300 metres in length with a fair positive response on the out-of-phase. This anomaly is in an area of background magnetics.

ANOMALY E is a one-line response with a good out-of-phase component lying near the North boundary of the present claim group.

RESULTS OF THE VLF SURVEY Cont'd

ANOMALY F is a weak 100 metre long VLF anomaly on the western edge of a magnetic high.

ANOMALY G is a curving weak VLF anomaly along the eastern contact of a North-South striking magnetic high.

ANOMALY H is a one-line VLF response in a magnetic low.

ANOMALY I is a strong one-line VLF response in a magnetic low just North of a magnetic high. A strong positive out-of-phase response is present.

ANOMALY $J$ is a North-South striking VLF, 700 metres in length with a branching J-2 anomaly 400 metres in length along the eastern edge of a magnetic high. Anomaly $J$ appears to be in an area 100 gammas above background.

ANOMALIES K, L and M are strong VLF anomalies 300 metres in length, all extending into patented claim $\mathrm{P}-2474$ and still open to the South of the present claim group.

These anomalies lie in an area 100 to 200 gammas above background to the West of high magnetics caused by mineralization in the gabbro consisting of nickel-bearing disseminated pyrrhotite.

ANOMALY $N$ is a strong VLF anomaly, 400 metres in length crossing through magnetic highs and staying in magnetic lows.

ANOMALY $O$ is 600 metres in length and also crosses through a magnetic high.

RESULTS OF THE VLF SURVEY Cont'd

ANOMALY $P$ on line $7+00 S$ appears to be due to pyrrhotite mineralization in gabbro and may have significant nickel and copper values with same. Anomaly $P$ is 300 metres in length and extends off the property to the South.

ANOMALY Q lies in a beaver pond and is likely the extension of anomalies $J-1$ and $J-2$. Anomaly $Q$ extends off the present claim group to the South. A strong response on the out-of-phase indicates two conductors at this location.

ANOMALY R is 500 metres in length and appears to cut through a North-South magnetic high following a magnetic low.

ANOMALY $S$ is a 600 metre long VLF anomaly in a 100 gamma magnetic high and may be following a mineralized zone in the gabbro.

ANOMALY $T$ is 800 metres in length and lies within a NorthSouth trending magnetic high. This high appears to be caused by a mineralized zone in the gabbro.

ANOMALY $U$ is a parallel VLF anomaly to Anomaly $P$ and may indicate the eastern edge of a broad mineralized zone.

ANOMALY $V$ is open to the North and to the South-East. Anomaly $V$ is a one-line anomaly located on line $1+00 S$ and lies on a magnetic high and appears to be due to pyrrhotite mineralization.

## CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey has outlined a series of broad bands of high magnetics trending North-South across the claim group, some of which are outlining diabase dikes; others appear to represent bands of disseminated pyrrhotite within the gabbro complex.

Since the preliminary map of Whitesides shows unmapped outcrop areas within the claim group, it is recommended that geological mapping and "plugger dust" sampling of the rock ridges be carried out, tieing samples and outcrops to grid lines.

Assaying the plugger dust for $\mathrm{Au}, \mathrm{Ni}, \mathrm{Cu}$ and silver should be carried out as a preliminary phase of exploration.

A Max-min survey is also recommended to check the VLF anomalies obtained during the present survey.

Local showings within the high magnetics have obtained grab samples ranging from $1 \%$ to $4 \%$ copper and .1 to $.58 \%$ nickel. Gold values ranging from . 01 to .04 ozs. per ton have also been reported from this property.

The gravity high over this area may indicate a more mafic unit at depth and adds interest to the nickel-copper potential of this claim group. Patented claims South of the claim group under discussion report assays up to $2.5 \%$ nickel.

Respectfully submitted,



Credits Requested per Each Claim
Mining Claims Traversed (List in numerical sequence)



Certification Verifying Reporyor Work


Ministry o
Northern Development and Mines

Ministère du
Développement du Nord et des Mines

Mining Lands Section
109 Cedar Street, 4th Floor UUDBURY, Ontario P3E 6A5

Telephone: (705) 670-7264
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(705) 670-7262

Your File: W9006.60479 Our File: 2. 13511

November 15, 1990
Mining Recorder
Ministry of Northern Development and Mines
 60 Wilson Avenue TIMMINS, Ontario P4N 2S7

Dear Madam/Sir:
RE: Notice of Intent dated October 9, 1990 for Geophysical (Electromagnetic and Magnetometer) Survey submitted on Mining Claims P 1116913 et al in Whitesides \& Massey Twp.

The assessment work credits, as listed with the above mentioned Notice of Intent have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

R.C. Gashinski

A/Provincial Manager, Mining Lands
Mines and Minerals Division
LJ/dvl
Enclosure
cc: Mr. W. D. Tieman Mining and Lands Commissioner

Resident Geologist Toronto, Ontario

Timmins, Ontario

Rene Dumont South Porcupine, Ontario

Mike Caron
South Porcupine, Ontario

## Recorded Holder

Rene Dumont
Township or Area
Whitesides \& Massey Twp.


8pecial eredits under section 77 (16) for the following mining elaims

$$
\text { P } 1116641 \text { - } 15 \text { days electromagnetic }
$$

- 30 days magnetic

No credits have been allowed for the following mining claimsnot sufficiently covered by the surveyinsufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment davs recorded on each claim does not exceed the maximum aliowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) -60.





