## E.F. CARR MINING CLAIMS

## ELECTROMAGNETIC AND MAGNETOMETRIC SURVEYS

REAUME TOWNSHIP

## PORCUPINE MINING DIVISION

PROVINCE OF ONTARIO
BY: C.F. DESSON
March, 1970

## PROPERTY CILATM LIST

The following contiguous unpatented mining claims are covered by this report:

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\begin{array}{r}
\text { P-102021 to P-102034 incl. }-14 \text { claims } \\
\text { P-102066 to P-102079 incl. } \\
\\
\text { TOTAL } \quad 28 \text { claims }
\end{array}
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## IOCATION AND ACCESSIBILITY

The property is situated in the north central portion of Reaume Township, District of Cochrane, Province of Ontario, about 7.5 miles south-west of the town of Cochrane.

Best means of access is via Hwy No. 11 (which is the northem route of the Trans Canada Highway) for 5 miles west from Cochrane and then southerly over fair gravel road for 7.5 miles to the property.

## GENERAL GEOLOGY

The consolidated rocks of Reaume Township are largely drift covered and the geology from the scarce outcrops has been supplemented with air and ground geophysics and diamond drill holes completed by various operators working in the area from time to time, so that the general nature and type of underlying rocks is fairly well known.

These rocks, all of the Precambrian Era, consist of acid to basic lava flows interbedded with narrow bands of tuffs and sediments; and the whole has been intruded mainly by basic to ultrabasic peridotites and serpentine rocks.

Some nickel and asbestos was detected in the peridotites and one known showing of chromium also occurs in peridotites in the northwest portion of the township.

## SUMMARY OF THE EIECTROMAGNETIC SURVEY

The survey was carried out over cut, chained and picketed lines striking due north across the property at 400 foot spacings, using an east-west base line, and tie lines for control. Instrument used was a Crone (V.E.M.) Vertical Loop Electromagnetic Unit Dual Frequency, 480 c.p.s. and 1,800 c.p.s. using fixed transmitter method. (See Appendix "B" for description of the instrument and method of the Crone V.E.M.). Readings were taken at $200^{\prime}$ station intervals along the cross lines.

Four conductors were detected in the survey and some further detail is required for more proper assessment of the same. In addition to these, there exists three other areas where possible conductors are indicated, one of which has one good cross-over on one line. These latter three areas also require additional setups for further detail for proper appraisal.

The conductors and possible conductive zone are described as follows:

CONDUCTOR ZONE "A" is a moderately strong conductor traced for 2,000 feet in an east-west direction in an area of weak magnetics with minor relief.

CONDUCTOR ZONE "B" is a strong conductor traced for 1,600 feet in an east-west direction, also in an area of weak magnetics with minor relief.

CONDUCTOR ZONE "C" is a moderately strong conductor with weak areas traced for 3,200 feet roughly in an east-west direction. This conductor follows the south edge of a high magnetic anomaly. Further detail should be done with transmitter setups made on the conductor axis for a more thorough appraisal prior to a drill test. The conductor continues both east and west but is weak.

CONDUGTOR ZONE "D" is a weak conductor traced for 800 feet in an east-west direction off the west end of Conductor Zone "C" and may be part of this latter zone, although it breaks away from the magnetic high which is coincident with conductor "C".

POSSIBLE ZONE "E" - due to the lack of line overlap between separate traverses in this area and the high buildup of readings taken on the south traverse area and the reverse crossover to the north of this blank area, a conductor may exist here and a new setup should be made where indicated for a detail survey.

POSSIBLE ZONE "F" - one fair crossover exists here and with other inflections of possible conductor zone as indicated, additional detail is required as laid out for proper search and appraisal.

POSSIBLE ZONE "G" - weak inflections of possible conductor indicated and poor transmitter to receiver coupline of this area necessitates additional detail (as laid out) for proper search and appraisal.

## SUMMARY OF MAGNEIOMETRIC SURVEY

The survey was carried out over the same line grid as the electromagnetic survey with readings taken at 1001 station intervals and at $50^{\prime}$ intervals where additional detail was required.

Instrument used was a McPhar Fluxgate Magnetometer, Model M700. Magnetic control stations were established at workable intervals throughout the grid area, mostly along the main base line for close magnetic control of all traverses made. (See Appendix "A" for description of McPhar M700 Magnetometer).

Two high magnetic anomalies were detected in this generally weakly magnetic area.

Anomaly No. 1 is a major magnetically high anomaly which was traced for 6,400 feet from the property east boundary westward. The anomaly is 1,200 feet wide and strikes roughly east-west. This is probably the true width of a probable peridotite intrusive which is the likely magnetic source. Main geological structures in this area are normally fairly steep to vertical and the intrusive appear to be conformable when of linear proportions. The anomaly continues weakly to the west.

Anomaly No. 2 is a magnetically high area at the extreme northwest corner of the claim group.

This anomaly occurs at the ends of the grid lines and might also open up to the north as a major magnetic high.

Respectfully submitted,
TEXMONT MINES LIMITED

C.F. LESSON

## McPHAR M. 700 MAGNETOMETER

The McPhar M. 700 Magnetometer is a vertical field fluxgate magnetometer. The self-levelling feature of this electronic magnetometer eliminates the need for bulky tripods and time consuming fine levelling procedures. Further, the instrument is relatively insensitive to orientation. Since the instrument can be adjusted electronically to cancel vertical magnetic fields from plus 100,000 gammas to minus 100,000 gammas there is no need for auxiliary magnets or complicated latitude adjustments.

The operation of the M. 700 Magnetometer is very simple. The reading on the meter is set to zero at the chosen base station. This can be done to an accuracy of 5 gammas. As successive stations are occupied, the instrument is held roughly level, and the increase or decrease in the vertical component of the earth's magnetic field is read directly from the meter. Five ranges are available and on the most sensitive range the accuracy is $\pm 5$ gammas.


THE TOWNSHIP

DISTRICT OF
COCHRANE
PORCUPINE
MINING DIVISION
SCALE: I-INCH=40 CHAINS
LEGEND
PATENTED LAND
CROWN LAND SALE
CROWN
OCASES LAND
LOCATED LAND
LICENSE OF OCCUPATIO
LICENSE OF OCCUP
ROADS
MPROVED
RAILWAYS
POWER LINES
POWER LINES
MARSH OR MUSKEG

## NOTES

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THE SUIVVEYOR GENERAL FILE MZI22.



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\text { PLAN NO. }-\mathrm{M}-576
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DEPARTMENT OF MINES
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