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REPORT
    FOR
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CANADEX MINING CORP. LIMITED
covering MAGNETIC and ELECTROMAGNETIC surveys
over their Sturgeon Lake area claim group

PATRICIA MINING DIVISION, ONTARIO

## CIAIMS, LOCATION \& ACCESS

The group consists of 24 contiguous claims numbered 227230 to 227241 and 227243 to 227248 and 227251 to 227256 all inclusive. They are located between Lyon Lake and sturgeon Lake, 4.5 miles northeast of the Mattagami Lake Mines orebody located on Abitibi Pulp and Paper Block \#7. Access is via winter road from the Mattagami mine ite or via Sturgeon Lake.

## PREVIOUS WORK \& REPORTS

The Ontario Department of Mines, 1930 report Part II, Sturgeon Lake Area indicates the area primarily underiain by rhyolitic type rocks. The alrborne magnetic map 1118 G ; indicates a magnetic anomaly immediately south of Lyon Lake. There is no record of any previous exploration work having been carried out on the Canadex clalm group.

## LINECUTTING

A total of 22.4 miles of inne were cut with a 400 inne interval. The work was under contract to George Potter of Kirkland Lake, Ontario with work being carried out between October 15 and November 5, 1969.

## INSTRUMENTS USED \& OPERATORS

Magnetic - A Sharpe Fluxgate, vertical component magnetometer was used for the survey, reading directly in gamms with an accuracy of ${ }_{-}^{+} 15$ gammas. Normal drift and diurnal corrections were applied to the readings.

Electromagnetic - The Crone Shootback EM method and eruipment were used with a $200^{\circ}$ coll separation and a basic reading frequency of 1800 Hz . Low Frequency readings taken at 480 Hz are marked L. F. Recorded reading is the "resultant dip angle in degrees" with an accuracy of plus or minus 1 degree.

Total mileage of the magnetic and electromagnetic surveys was 22.4. Some additional $300^{\circ}$ coil separation electromagnetic coverage was carried out over the ice of Sturgeon Lake. Since these latter readinge were all 0 or -1 , they were not plotted on the map. A limited amount of vertical loop detail over the anomalous readings alded in the interpretation.

Both magnetic and electromagnetic surveys were carried out under the supervision of Garnet Flaherty of Bracebridge, Ontario during the period October 20 t. 0 November 20, 1969.

## INTERPRETATION

Six separate conductive zonez were detected on the claim group. The dip angles are not large, usually in the order of -5 to -6 degrees. This indicates that an excellent conductor
1.s detected under heavy overburden in the order of 100' to 150: or a moderate conductor is being detected under shallower overburden. Three of the conductors have direct magnetic correlation varying from two hundred to eight hundred gammas. These conductors will be described starting from the south of Iyon Lake and moving northward.

Conductor "A" This conductor occurs within 400" of the south bcundary of the claim group under Lyon Lake. It appears wide and formational. It is associated with o magnetic high of 300 to 700 gammas. Overburien is axpected to be in the order of 75'. A test hole has been spotted on Line $24+00 \mathrm{E} ; 69+50 \mathrm{~s}$ drilling grid south at i550c for a depth of $550^{\circ}$.

Conductor "B" This also occurs under Lyon Lake 500' north of conductor "A". It has weak magnetic correlation in the older of 200 gammas; cuerbirien is expectad to be approximately 75'. A test hole has been spotted on line 20E; $64+50 \mathrm{~s}$ drililing south at $-550^{\circ}$ for $550^{\prime}$.

Conductor "C" This is a short conductor on line $16+00 E$ immedjately north of Lyon Lake. It is colncident with an 800 grmma magnetic high with overburden expected to be in the order of 40 feet. A test hole is spotted at $57+50 \mathrm{~s}$ line $16+00 E$ drilling grid south at $-45^{\circ}$ to a depth of $400^{\prime}$.


#### Abstract

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Conductor "D" This conductor crosses the width of the claim group at approximately $48+00$ south. On ilnes $12 E$ to 20 E the conductor appears to be associated with near by parallel conductors this it may be banded formation. Magnetic correlation is very weak to nil. A test hole is spotted on line $12+00 E, 45+50 S$ drilling grid south at $-45^{\circ}$ to a depth of 700\%. Overburden is expected to be in the order of 75\% to $100^{\circ}$.

Conductor "E This conductor is located immediately north of Base Line $30+00 S$ between line $0+00$ and line $20+00 \mathrm{~W}$. This conductor appears to be in the order of 600' wide with overburden approximately $100^{\circ}$ deep. There is no magnetic correlation. One drill hole has been spotted to test the southern half of :his corductor - if any values are obtained in this hole then another identical hole should be dridied from a position 400 feet grid north of this hole. The first hole is collared on Line $B+00 \mathrm{~W}, 25+00$ south, drilling at $-45^{\circ}$ to depth of 700 feet.

Conductor "F" This conductor at first appears to be a continuation of conductor $D$, being located approximately at $22+00$ south between 11 nes $8+00 \mathrm{E}$ and $12+00 \mathrm{E}$. However this consuctor has a flanking magnetic high of 2500 to 5000 garmas immediat.ely to the south. Wicth of the conductor is in the order of 50 foet to 100 feet and dapth less than 50 feet. A test hole has been spoted at $20+005$, line $12+00 \mathrm{E}$ drila ling at $-15^{\circ}$ in a due south direction for 500 feet.


## CONCLUSIONS

Six conductors were located all striking N $65^{\circ} \mathrm{W}$. The conductors in most cases appear to dip between vertical and $70^{\circ} \mathrm{N}$. They are usually of considerable width (grater than 100 feet but most of this width being fracture filing type sulphide mineralization or interconnected bands of graphite.

A hole has been located to test each conductor. If values are intersected in a conductor then it is recommended that a RADEM-VIF-EM survey measuring dip angle and field strength be carried out on a detail grid with 2001 ins interval over the length of the conductor. This would assist in locating follow-up drill holes.

Respectfully submitted;



# SPECIAL PROVISION <br> ASSESSMENT WORK DETAILS <br> Magnetic survey 

NAMES AND ADDRESSES

| Chief Line Cutter or Contractor | George Potter, | Kirkland Lake, | Ontario |
| :---: | :---: | :---: | :---: |
| Party Chiel | Garnet Flaherty, | Bracebridge, | Ontario |
| Consultant | Duncan Crone, | Port Credit. | Ontario |

CGUERING DATES
Line Cutting $\quad$ October 15 to November 5, 1969
Field and Office $\quad$ October 20 to November 30, 1969

INSTRUMENT DATA
Make, Model and Type $\quad$ Sharpe Fluxgate MF-l
Scale Constant of Sensitivity $\quad$ directiy in gammat 15 gammas
or provide copy of instrument data from Manulacturer's brochure
Total Number of Stations Within Claim Group _ 2068
Number of Miles of Line cut Within Claim Group $\quad 22.4$

ASSESSMENT WORK CREDITS REQUESTED
Geological Survey $\qquad$ Days per Claim

Geophysical Survey 40 Days per Claim

MINING CLAIMS TIIAVERSED
PA 227230, PA 227231: PA 227232. PA 227233. PA 227234, PA 227235, PA 227236, PA 227237, $\operatorname{PA}$ 227238. PA 227239. IN 227240. FA 227241. PA 227243, PA 227244, RA 227245, PA 227246, PA 227217, PA 227248, PA 227251. PA 227252, PA 227253, PA 227254. FA 227255. PA 227256,


## SPECIAL PROVISION

## ASSESSMENT WORK DETAILS

Electromagnetic survey
NAMES AND ADDRESSES


COVERING DATES
Line Cutting October 15 to November 5. 1969

Field and Oflice $\qquad$ October 20 to Novmber 30. 1969

INSTRUMENT DATA
Make, Model and Type ___ Cxone Shootbnck JER1 - 4BO - 1800 JIE
Siale Constant or Sensitivity

or provide copy of instrument data from Manufacturer's brochure
Total Number of Stations Within Claim Group $\quad 1072$
Number of Miles of Line cur Within Claim Group 22.4

ASSESSMENT WORK CREDITS REQUESTED
Geological Survey $\qquad$ Days per Claim

Geophysical Survey 20 Days per Claim
mining Claims thaverised
PA 227230, PA 227231, PA 227232. PA 227233, PA 227234, PA 227235.
PA 227236. PA 227237, PA 227238, PA 227239. PA 227240. PA 227241.
PA 227243. PA 227244, PA 227245. PA 227246. PA 227247. SA 22724B.
PA 227252. PA 227252, PA 227253, PA 227254, PA 227255, PA 227258,


Mr. W. A. Buchan,
MIvilny: Recorder, Court House.
SIoux Lookout, Out.

Dear SIt:
He: Mining Claim no. Pa. 227280 et ad, Elvonle Lake Area.

The Geophysical aseoserant work credits as shown of the attached List have been approved as of the date above. Please inform the recorded holder and so indicate on your records.

Yours very truly,


Fred W. Matthew,
Euparviant.
Projects Section.
/dg.
coo. Bordon C. Blackett, 2501-380 Bay fret, Toronto, Ont.
c.c. H. L. King, Resident Geologist, BOB Robertson St., Xepora, Ont.

## TECHNICAL ASSESSMENT WORK CREDITS

| Recorder Holder | . Gordon G. . Plaserett |
| :---: | :---: |
| whownwimor Area | . Stıxmille . Lake |

Type of Survey and number of Assessment Days Credits per cläim

GEOPHYSICAL Airborne $\square$ Ground $x$
$\qquad$Electromagnetic ................................days
$\qquad$
$\qquad$GEOLOGICALdays
GEOCHEMICAL

$\qquad$
days
SECTION 84 (14) ..... days

Special Provision $X$ Man days $\qquad$

## Mining Claims

Pa. 227230 to 41 inci.
227243 to 48 incl.
227251 to 56 inc. 1.

## NOTICE OF INTENT TO BE ISSUED

$\square$
Credits have been reduced because of partial coverage of claims.
$\square$ Ciedits have been reduced because of corrections to work dates and figures of ap; licant.

NO CREDITS have been allowed for the following mining claims as they were not sufficiently covered by the survey:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

| Mining Claims |
| :---: |
| Pa. 227230 to 41 inci. |
| 227243 to 48 incl. |
| 227251 to 56 inc. . |
| . |

The Mining Rocordof may raduce tho above credits if necessary in ordor that the total number of spproved assoxsmont deys recordod on exch claim does not exceod the manimum allowed as follows: Geophrsicel - 80; Geological - 40; Geochomical - 40;

# SEE ACCOMPANYING 

## MAP (S) IDENTIFIED AS

$$
52 G / 15 \mathrm{NW}-0077-\mathrm{Al}=1-2
$$

## LOCATED IN THE MAP

## CHANNEL IN THE

FOLLOWING SEQUENCE



