KIDD CREEK MINES LTD.

GEOPHYSICAL REPORT

ON

AIRBORNE MAGNETIC SURVEY

TULLY 26 AND 41

TULLY TOWNSHIP

N.T.S.: 42-A-14/11

AUGUST, 1984

M. W. ZANG

RECEIVED
AUG 29 1984
MINING LANDS SECTION
SUMMARY AND RECOMMENDATIONS

A strong anomaly was detected on the Tully 41 property during an airborne magnetic survey in Tully Township. Previous ground surveys have indicated that the anomaly is due to ultramafic volcanics. It is recommended that any bedrock conductors found in the vicinity of an ultramafic body be considered as possible precious or base metal targets.
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<td>SURVEY RESULTS</td>
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INTRODUCTION

During June, 1984 Questor Surveys Ltd. carried out an airborne magnetic survey for Kidd Creek Mines Ltd. in Tully Township, Porcupine Mining District. The survey covered 17 non-contiguous claims held by Kidd Creek Mines Ltd. in the west central and southeast parts of the township (Figure 1). The claim numbers and locations are as follows:

Tully 26
P 576981 - P 576982
P 576986 - P 576991 inclusive

Tully 41
P 566528 - P 566531 inclusive
P 576719 - P 576722 inclusive
P 576980

The properties are located approximately 34 kilometres north-northeast of the City of Timmins.

Previous work on the properties include an airborne and ground electromagnetic survey by Noranda Mines Ltd. on most of the Tully 26 claim group. The airborne survey indicated a six channel anomaly centred on claim P 576990. The ground EM survey failed to indicate a significant conductor. In 1978, a 153 metre hole was drilled by Amoco Canada Petroleum...
Company Ltd., also on claim P 576990. The northeast bearing hole intersected graphitic argillite with some minor pyrite.

On the Tully 41 claims, Chiblow Mines conducted both ground magnetic and electromagnetic surveys. Mattagami Lake and Texasgulf Canada Ltd. performed similar surveys and located a poorly conductive zone on the south half of the present claim group. There has been no recorded diamond drilling on this property.

SURVEY DESCRIPTION

The survey was carried out with a Geometrics Model 803 Proton Precession Magnetometer. Navigational control was accomplished with the aid of a 35 mm continuous strip flight camera and subsequent visual position recognition.

The claims were surveyed on north-south flight lines spaced approximately 200 metres apart. The aircraft was flown as close as possible to an altitude of 122 metres above the ground. A total of 31.3 kilometres of line were flown over the 17 claims.

SURVEY RESULTS

The magnetic data for Tully 26 has been contoured at every 10 gammas in Figure 2. There is very little magnetic
contrast on this property with the only trend being a gradual rise in magnetic susceptibility to the southwest. This feature most likely represents a change in rock type from low-susceptibility sediments to mafic or ultramafic volcanics.

The magnetic results for Tully 41 have been contoured at 10 gamma intervals in Figure 3. A major southeast trend of high magnetic susceptibility is found in the four most southern claims of the property. This feature most likely represents one of the many ultramafic units found throughout the township. The rise in magnetic susceptibility in the northwest corner of the property may also be due to ultramafic volcanics. The rest of the property appears to be underlain by low-susceptibility sediments or felsic to intermediate volcanics.

M. W. ZANG
KIDD CREEK MINES LTD.
Exploration Division
Timmins, ONTARIO

TULLY 26
TULLY Twp.
NORTH - SOUTH FLYING
AIRBORNE MAGNETIC

SCALE: 1 : 10,000
Date: Ques tor
Drawn: DEL Project No: 18 Date: 24/08/84
Ministry of Natural Resources
Ontario

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

Type of Survey(s)
Airborne Geophysics

Claim Holder(s)
Kidd Creek Mines Ltd.

Address
571 Moneta Avenue, P.O. Box 1140, Timmins, Ontario P4N 7H9

Survey Company
Kidd Creek Mines Ltd.

Date of Survey
15 05 84 - 03 07 84

Total Miles of line Cut
---

Name and Address of Author (of Geo-technical report)
M. Zang, 571 Moneta Avenue, P.O. Box 1140, Timmins, Ontario P4N 7H9

Credits Requested per Each Claim in Columns at right

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)

Man Days
Complete reverse side and enter total(s) here

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological

Geochemical

Days per Claim

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological

Geochemical

Airborne Credits
Note: Special provisions credits do not apply to Airborne Surveys.

Days per Claim

Expenditures (excludes power stripping)

Type of Work Performed
Performed on Claim(s)

Calculation of Expenditure Days Credits
Total Expenditures
Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date
July 3, 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
M. Zang, 571 Moneta Avenue, P.O. Box 1140, Timmins, Ontario P4N 7H9

For Office Use Only

Total Days Credit Recorded
340

Date Approved as Recorded
8 4 10 84

Certified by (signature)
M. Zang
**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.

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**Type of Survey(s):** GEOPHYSICS

**Township or Area:** Tully Township

**Claim Holder(s):** Kidd Creek Mines Ltd.

571 Moneta Avenue, P.O. Box 1140

Timmins, Ontario

**Survey Company:** Kidd Creek Mines Ltd.

**Author of Report:** M. W. Zang

**Address of Author:** 571 Moneta Avenue, P.O. Box 1140

Timmins, Ontario

**Covering Dates of Survey:** June 1, June 9, 1984

(linecutting to office)

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**Total Miles of Line Cut:**

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**SPECIAL PROVISIONS CREDITS REQUESTED**

<table>
<thead>
<tr>
<th>Geophysical</th>
<th>DAYS per claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Electromagnetic</td>
<td></td>
</tr>
<tr>
<td>- Magnetometer</td>
<td></td>
</tr>
<tr>
<td>- Radiometric</td>
<td></td>
</tr>
<tr>
<td>- Other</td>
<td></td>
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</tbody>
</table>

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

**Magnetometer 20**

**Electromagnetic**

**Radiometric**

(enter days per claim)

**DATE:** August 28, 1984

**SIGNATURE:** M. W. Zang

Author of Report & Agent

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**RES. GEO. QUALIFICATIONS:** 24262

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**Previous Surveys**

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

AUG 29 1984

MINING LANDS SECTION

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**TOTAL CLAIMS:** 17
GEOPHYSICAL TECHNICAL DATA

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

Number of Stations __________________________ Number of Readings __________________________

Station interval __________________________ Line spacing __________________________

Profile scale __________________________ Contour interval __________________________

Instrument __________________________

Accuracy — Scale constant __________________________ Diurnal correction method __________________________

Base Station check-in interval (hours) __________________________ Base Station location and value __________________________

Instrument __________________________

Coil configuration __________________________ Coil separation __________________________

Accuracy __________________________

Method: □ Fixed transmitter □ Shoot back □ In line □ Parallel line

Frequency __________________________ (specify V.L.F. station)

Parameters measured __________________________

Instrument __________________________

Scale constant __________________________

Corrections made __________________________

Base station value and location __________________________

Elevation accuracy __________________________

Instrument __________________________

Method □ Time Domain □ Frequency Domain

Parameters — On time __________________________ Frequency __________________________

— Off time __________________________ Range __________________________

— Delay time __________________________ Integration time __________________________

Power __________________________

Electrode array __________________________

Electrode spacing __________________________

Type of electrode __________________________
### SELF POTENTIAL

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Survey Method</th>
<th>Corrections made</th>
</tr>
</thead>
</table>

### RADIOMETRIC

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Values measured</th>
<th>Energy windows (levels)</th>
<th>Height of instrument</th>
<th>Background Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Size of detector</th>
<th>Overburden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(type, depth – include outcrop map)</td>
</tr>
</tbody>
</table>

### OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

<table>
<thead>
<tr>
<th>Type of survey</th>
<th>Instrument</th>
<th>Accuracy</th>
<th>Parameters measured</th>
<th>Additional information (for understanding results)</th>
</tr>
</thead>
</table>

### AIRBORNE SURVEYS

<table>
<thead>
<tr>
<th>Type of survey(s)</th>
<th>Instrument(s)</th>
<th>Accuracy</th>
<th>Aircraft used</th>
<th>Sensor altitude</th>
<th>Navigation and flight path recovery method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic</td>
<td>Geometrics Model 803 Proton Precession Magnetometer</td>
<td>+ 1 gamma</td>
<td>Short Skyvan (Canadian Registration C-FOSL)</td>
<td>122 metres</td>
<td>Comparison of 35 mm black and white film (exposed during flight) with a photo base mosaic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aircraft altitude</th>
<th>Line Spacing</th>
<th>Miles flown over total area</th>
<th>Over claims only</th>
</tr>
</thead>
<tbody>
<tr>
<td>122 metres</td>
<td>200 metres</td>
<td>1,632 km</td>
<td>31.3 km</td>
</tr>
<tr>
<td>Numbers of claims from which samples taken</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-----------------------------------------</td>
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<td></td>
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</tr>
<tr>
<td><strong>Total Number of Samples</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Type of Sample</strong></td>
<td>(Nature of Material)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average Sample Weight</strong></td>
<td></td>
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<tr>
<td><strong>Method of Collection</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Soil Horizon Sampled</strong></td>
<td></td>
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<tr>
<td><strong>Horizon Development</strong></td>
<td></td>
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<tr>
<td><strong>Sample Depth</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Terrain</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Drainage Development</strong></td>
<td></td>
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<tr>
<td><strong>Estimated Range of Overburden Thickness</strong></td>
<td></td>
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</tbody>
</table>

**SAMPLE PREPARATION**

(Includes drying, screening, crushing, ashing)

<table>
<thead>
<tr>
<th>Mesh size of fraction used for analysis</th>
<th></th>
</tr>
</thead>
</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

General
Mining Lands Section

File No 271/2

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:


August 28, 1984

Mr. Fred Matthews  
Director, Land Management Branch  
Whitney Block, Room 6450  
Queen's Park  
TORONTO, Ontario  
M7A 1W3

Dear Sir:

Re: TULLY TOWNSHIP

Enclosed please find duplicate copies of a report and maps covering claims in Tully Township. The claims aforementioned are P-576981, P 576982, P 576986 - P 576991 inclusive, P 566528 - P 566531 inclusive, P 576719 - P 576722 inclusive and P 576980.

Your prompt attention to this matter would be greatly appreciated.

Yours very truly,

M. W. Zang

MZ/pp  
Encls.

RECEIVED  
AUG 29 1984  
MINING LANDS SECTION
Dear Sir:

We have received reports and maps for an Airborne Geophysical (Magnetometer) Survey submitted on Mining Claims P 576719 et al in the Township of Tully.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1H3
Phone:(416)965-4888

A. Barr:mc

cc: Kidd Creek Mines Ltd
571 Moneta Avenue
P.O. Box 1140
Timmins, Ontario
P4N 7H9
Attention: M. Zang