SHERRITT GORDON MINES LIMITED
FLINT LAKE
PROJECT CODE #1300 M-2585
N.T.S. 52-F-5-SW

RECEIVED
APR 14 1981
MINING LANDS SECTION
INTRODUCTION

This report deals with a geophysical program conducted by SHERRITT GORDON MINES LIMITED of Dryden, Ontario in the February 1981 period. The property is located on Flint Lake in Northwestern Ontario approximately 42 air miles southeast of Kenora. Access can be made from the landing on Dogpaw Lake at Whitefish Bay Indian Reserve. In the winter, the property can be reached by snowmobile down Dogpaw Lake and across a portage into Flint Lake. In the summer, access can be made wholly by water from the Whitefish landing through to Caviar Lake and then south on Caviar to Flint Lake.

The holders and their respective addresses are:
John Howard c/o Kenora Air Services, Kenora, Ontario
Herbert Linnell Donkirk Heights, Kenora, Ontario

Linecutting was performed by Stanart Mining Exploration Services of Sioux Lookout, Ontario. The grid was cut at a 400 foot interval for picketlines and a 2000 foot interval for baseline. Approximately 23 miles of picketline and
5 miles of baseline were cut and chained in late January of 1981. The baselines had a bearing of 90° true. A horizontal loop electromagnetometer survey and a vertical component magnetometer survey were performed by SHERRITT GORDON personnel. All results are presented on the enclosed maps at a plan scale of 1 inch to 200 feet.

A camp was set up on Flint Lake and the geophysical work was performed by Dave Breeze, Mike Glanfield, Terry Trist and Dennis Carpenter, all SHERRITT GORDON personnel. Compilation, drafting and interpretation was completed in both our Dryden and Lynn Lake, Manitoba Offices.

A major shear zone of mafic to intermediate metavolcanics and tuffs cut across the middle of these claims. A mafic intrusive cuts across the south part of the grid which would explain the magnetic anomaly on the south end of the grid. The major shear zone seems to occur in a magnetic low. The Dubenski property directly to the west of the grid has significant gold values in an area of intensely sheared sericite, feldspar schist. Indications of an eastern continuation of this particular zone which is identified by an EM conductor is not apparent in our survey.

In September, 1980; V. Scime of SHERRITT GORDON investigated the gold showings recorded on the O.G.S. map
Geophysical Survey Report

of Cedartree Lake (M-2319) in the area of the survey. Grab samples were taken in claims 559992 and 490446 on the old Noranda Meahan Occurrence.

MAGNETOMETER SURVEY

A Scintrex MF-2 vertical component magnetometer was used in this survey. A total of 2545 stations at 50 foot intervals were read.

ELECTROMAGNETOMETER SURVEY

This survey involved a Max-Min 2 in the horizontal loop configuration. Coil separation was 200 feet and two frequencies were used, 888 and 3555 Hz. Station interval was 100 feet.

Submitted March 18, 1981

Peter Hannigan
DRYDEN OPERATION
Horizontal Loop Survey

The overburden is quite conducting and within the bounds of reasonable doubt, all the responses (except for the exception noted) can be adequately explained as arising from flat lying surficial features.

At the south end of lines 44E and 52E valid bedrock conductors may be present. There is some doubt as to the strike direction in this area. At any rate, the lines would have to be extended to the south to properly outline these anomalies.

Vertical Component Magnetometer Survey

All the prominent magnetic features appear to be mafic to ultramafic intrusions ranging in composition from gabbro to anorthositic gabbro to pyroxenite, with the most mafic being the most magnetic. The local extreme magnitude of the anomalies implies that bands of essentially magnetite must be locally present.

However, the northernmost body (covered by claims 559987, 559989 and 559992) has not been observed in outcrop. Its form is bounded by lines which may have structural significance. The south boundary is the very extensive shear zone indicated in the geological mapping (bearing at 110°/290°). The incipient complementary shear would strike at 200°/20°. This direction also coincides with a weak NNE striking feature which projects close to a dike of quartz-feldspar porphyry, i.e. along a line joining points 40E/10+50S and 44E/4N. The compression direction would then be 65°/245° and the dilation direction would be 155°/335°.
Recommendations

1. The apparent QFP dike should be carefully checked out, particularly where it crosses the main shear zone, i.e. line 44E from 0 to 6+50N.

2. A line joining 48E/5+50N to 40E/20N should be carefully prospected.

3. The immediate vicinity of line 48E at 12+50N should be carefully prospected.

A number of relatively short drill holes may be necessary to pursue this prospecting as there may be a lack of outcrop.

April 2, 1981

P. A. Pawliw
Chief Geophysicist
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.

Type of Survey(s) MAGNETOMETER & E.M.
Township or Area DOGPAW LAKE AREA M-2585
Claim Holder(s) J. HOWARD H-9838
H. LINNELL H-9885
Survey Company SHERRITT GORDON MINES LIMITED
Author of Report P. A. PAWLIW; P. HANNIGAN
Address of Author SHERRITT GORDON MINES LIMITED
LYNN LAKE, MANITOBA ROB OWO
Covering Dates of Survey JANUARY 1981 - FEBRUARY 1981
Total Miles of Line Cut 23 MILES OF GRIDLINE; 5 MILES OF BASELINE

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

Magnetometer Electromagnetic Radiometric

DATE: April 10, 1981 SIGNATURE: Peter Hannigan
Author of Report or Agent

Res. Geol. Qualifications 2.3837

Previous Surveys

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TOTAL CLAIMS 31
**GEOPHYSICAL TECHNICAL DATA**

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

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**MAGNETIC**

Instrument: **SCINTEX MF - 2 VERTICAL COMPONENT FLUXGATE**

- Accuracy – Scale constant: 10 gamma on 1000 scale
- Diurnal correction method: Scintrex MB/2 base station plus looping between adjusted baselines
- Base Station check-in interval (hours)
- Base Station location and value

**ELECTROMAGNETIC**

Instrument: **MAX - MIN 2**

- Coil configuration: HORIZONTAL LOOP
- Coil separation: 200 FT.
- Accuracy: 1%
- Method: □ Fixed transmitter □ Shoot back □ In line □ Parallel line
- Frequency: 888 & 3555 Hz
- Parameters measured: IN - PHASE & QUADRATURE

**GRAVITY**

- Instrument
- Scale constant
- Corrections made
- Base station value and location
- Elevation accuracy

**INDUCED POLARIZATION**

- Instrument
- Method □ Time Domain □ Frequency Domain
- Parameters – On time
- Off time
- Delay time
- Integration time
- Frequency
- Range
- Power
- Electrode array
- Electrode spacing
- Type of electrode
### APPENDIX

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LEGEND
- IN PHASE
- OUT OF PHASE
- CLAIM LINE
- CLAIM POST
- SHORE LINE

SHERITT GORDON MINES LIMITED
FLINT LAKE PROJECT
HORKINS, KINNEITY, LOUDEN OPTION
PROJECT NO. 1300
CLAIM MAP NO. M-2585
ELECTROMAGNETIC SURVEY
MAX M9 2-15
N15'-50'-7-15
VERTICAL SCALE: 1 IN.+200'
PLAN SCALE 1 IN.+200 FT
COIL SEPARATION 200 FT
FREQUENCY 888 HZ
OPERATORS: D. BREEZE, M. GLANFIELD
FEBRUARY 1981