

SUMMARY

During January and February 1967, we carried out linecutting, electromagnetic and magnetic surveys on the Shabu Lake property for Madsen Red Lake Gold Mines Limited. The property is located on Shabu Lake along the Sixth Meridian and approximately 45 miles north^{east}~~west~~ of Red Lake, Ontario.

The area surveyed includes claims 55771-55773, 55776-55782, 55784-55787, 55790-55797 and parts of claims 55760, 55774-55775, 55783, 55788-55789, 55798 and 55869.

Several conductors were located, some of which have high apparent conductivity and warrant further investigation. All of the conductors are found in areas of high magnetic relief and in most cases there is good coincidence between magnetic and electromagnetic anomalies. The magnetic and electromagnetic results show a pronounced change in strike suggesting a fold structure. Some evidence of faulting was also noted.

METHOD

The readings were taken at 100 foot intervals along picket lines cut at 200 foot spacings from a centrally located base line. Readings were taken between 100 foot pickets in the anomalous areas.

Electromagnetic Survey

The electromagnetic survey was carried out with the "loop-Frame" or "slingram" method. A battery driven oscillator is used to energize a moveable transmitter coil. The alternating electromagnetic field is received by a receiving coil connected to a compensator-amplifier. The compensator is adjusted to read zero over undisturbed ground for the particular coil separation used by adjusting the magnitude of the reference signal fed to the receiver from the transmitter. Two components of the secondary field are measured and expressed in percentage of the normal field.

The relative amplitudes of the in-phase and out-of-phase components may be used to approximate the conductivity and depth of a conducting body. Conductivity is expressed as ρ/d where ρ is the resistivity in ohm cm and d is the thickness in meters.

A coil spacing of 200 feet and a frequency of 3520 cps were used for the survey.

Magnetic Survey

The magnetic survey was carried out with a vertical force, MZ-4 torsion magnetometer manufactured by ABEM of Stockholm, Sweden. The scale constant is 10.9 gammas per division and the reading accuracy is 3 gammas.

Corrections for diurnal and/or instrument drift were made by repeating base stations at regular intervals.

RESULTS

The magnetic results (Map 67-13M) show a zone of high magnetic relief occurring along the east shore of Shabu Lake. This zone has a general north-south strike to the south end of the lake (line 24S) then turns abruptly and assumes an east-west direction. Abrupt changes in the magnetic pattern suggest the possibility of faulting near lines 4S and 16N.

The electromagnetic results indicate very neutral overburden conditions except for parts of Shabu Lake where positive readings are noted, particularly along the east shore. The best conductivity zones occur along the east shore between 4S and 14N and at the south end of the Lake on line 24S. ρ/d values of less than 3 indicate very high conductivity (low resistivity).

Good to medium conductivity zones (ρ/d 9 to 12) were noted on line 14N at 1500 east, 20 and 22S at 100 west and line 2S at 2650 west. These all occur in areas of higher magnetic relief.

Lower conductivity zones were noted along the east shore near the north boundary.

CONCLUSIONS AND RECOMMENDATIONS

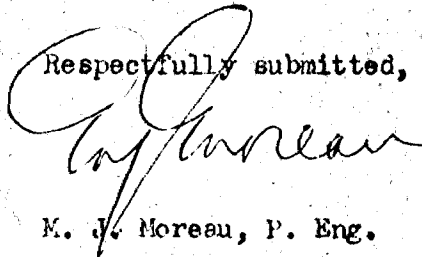
The conductors appear to be associated with iron formation although the higher conductivity zones are in the massive or near massive sulphide range. The better conductors appear to occur in or close to the fold and fault structures postulated from the magnetic results.

The writer was unable to examine the pits and trenches located on or near some of the zones, due to the heavy snow. Some of the zones appear to be untested.

It is difficult to recommend specific drill targets without all available geological and prospecting data, however, many of the zones are in the massive sulphide conductivity range. Any of the indications shown on the accompanying map could reflect important sulphide mineralization.

Further exploration by trenching or drilling is recommended.

Respectfully submitted,



M. J. Moreau, P. Eng.

MJM/om

AREA III

SHABU LAKE

DISTRICT OF KENORA
(PATRICIA PORTION)

RED LAKE MINING DIVISION

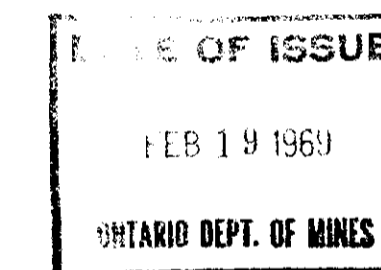
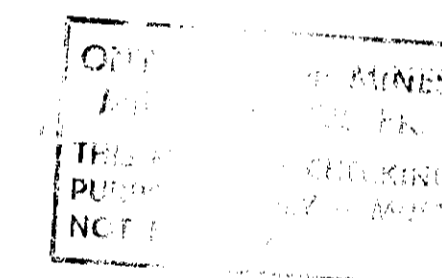
SCALE: 1 INCH = 40 CHAINS

LEGEND

- PATENTED LAND ---
- CROWN LAND SALE ---
- LEASES ---
- LOCATED LAND ---
- LICENSE OF OCCUPATION ---
- MINING RIGHTS ONLY ---
- SURFACE RIGHTS ONLY ---
- ROADS ---
- IMPROVED ROADS ---
- KING'S HIGHWAYS ---
- RAILWAYS ---
- POWER LINES ---
- MARSH OR MUSKEG ---
- MINES ---
- CANCELLED ---

NOTES

400' Reserve around all lakes & rivers to Dept. of Lands & Forests



93°00'
51°22' 30"

51°15'

93°00'



53974

200

53974

SKINNER TWP.

FOR STATUS REFER TO TWP PLAN No. M. 264

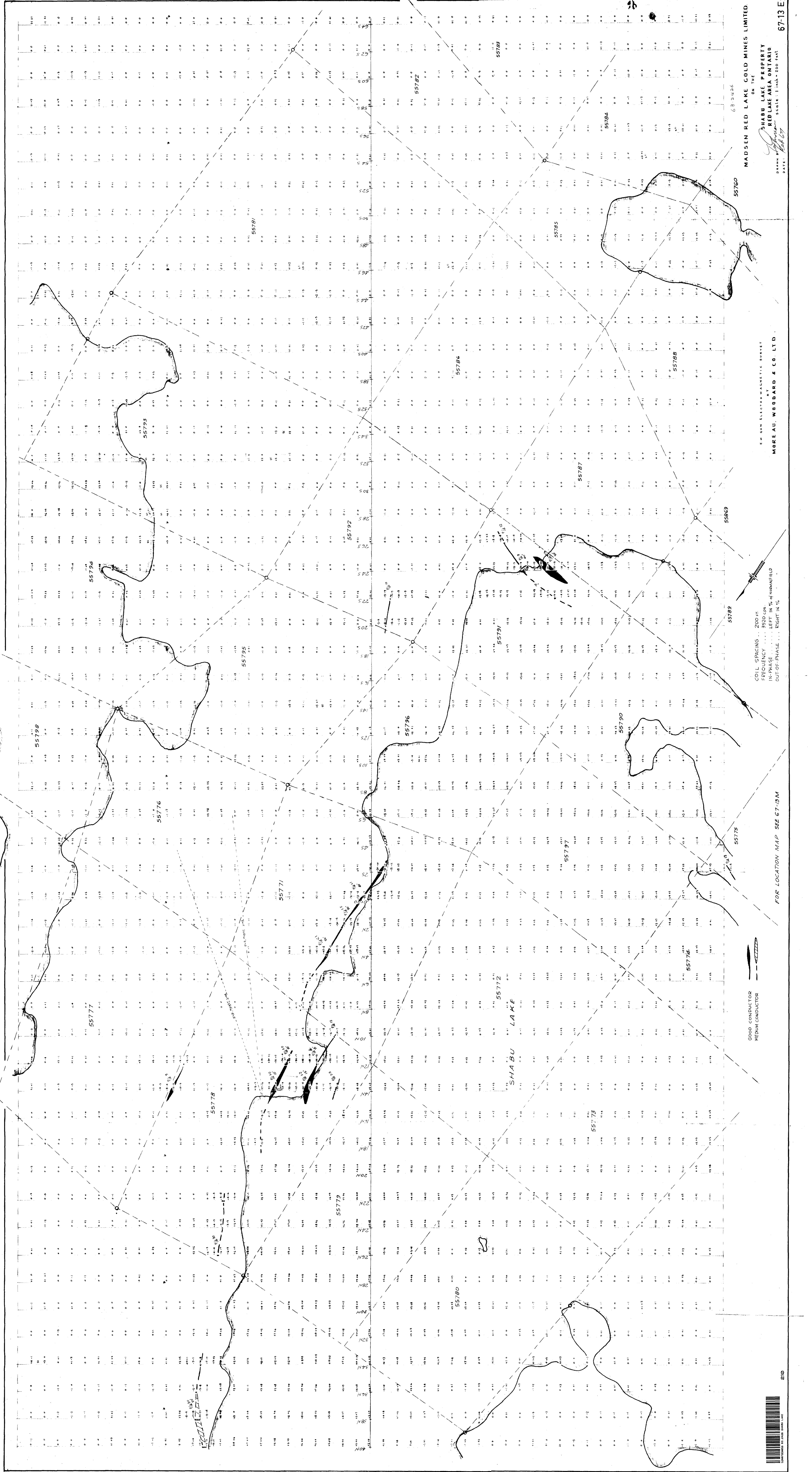
GOODALL TWP.

FOR STATUS REFER TO TWP PLAN No. M. 264

PLAN NO. **M.2608**

DEPARTMENT OF MINES

ONTARIO



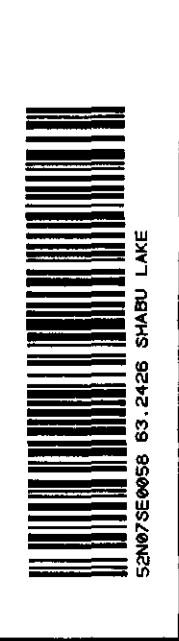
MADSON RED LAKE GOLD MINES LIMITED
ON THE
SHABU LAKE PROPERTY
RED LAKE AREA ONTARIO
DRAWN BY: [Signature]
DATE: 1967

EM SON ELECTRO-MAGNETIC SURVEY
MOREAU WOODWARD & CO. LTD.

COIL SPACING: 200 FT.
FREQUENCY: 3200 C/P
INSURANCE: 1 IN. IN 1/2 OF HORIZONTAL FIELD
OUT-OF-PHASE: 1/2 RIGHT IN 1/2

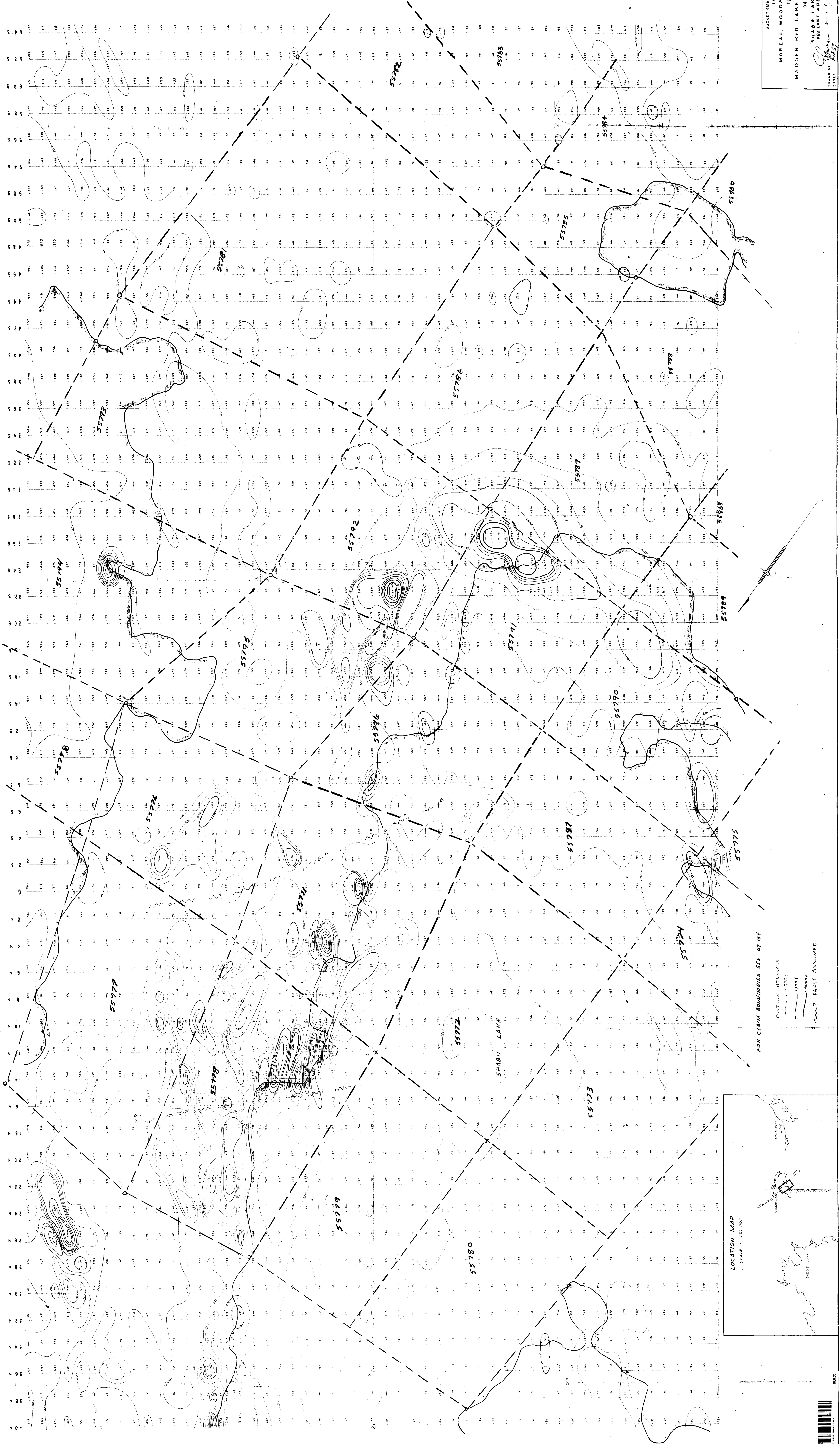
GOOD CONDUCTOR
MEDIUM CONDUCTOR

FOR LOCATION MAP SEE 67-13M



55783C

SAGINAW COUNTY SURVEY
 BY
 MOREAU, WOODWARD & CO. LTD.
 1984
 MADSEN RED LAKE GOLD MINES LIMITED
 ON THE
 SHABU LAKE PROPERTY
 RED LAKE AREA, ONTARIO
 DRAWN BY: *Chapman*
 DATE: *Feb 97*
 SCALE: 1" = 200' HWT
 67-13 M



FOR CLAIM BOUNDARIES SEE 67-8E

CONTOUR INTERVALS
 200'
 100'
 50'
 ? FAULT ASSUMED

