Report on the Electromagnetic Survey on
REEF EXPLORATIONS LIMITED
Best Township - Gillies Limit - Ontario

PROPERTY

The property comprises a group of 27 unpatented and unsurveyed mining claims and 4 patented parcels. The electromagnetic survey was conducted on only 9 of the 27 claim group and on parts of two patented parcels. These consist of the following numbers:

T-31459, T-36728, T-31210, T-31197,
T-31209, T-31196, T-31203, T-31206,
T-31202 and WD-404 and WD-405.

LOCATION

The property straddles the mutual boundary of Gillies Limit and Best Township, Temiskaming Mining Division, Ontario.

ACCESS

Highway No. 11 passes through the property from south to north some eleven miles north from the town of Temagami, Ontario.

GEOLOGY

Study of the Anima Nipissing Lake Area map No. 35c, by E. W. Todd in Vol. 35, pt. 3, 1936, Ontario Department of Mines, reveals that for the most part the property is underlain by lavas of Keewatin age occurring as part of a roof pendant in intrusive granite of Algoman age. Cobalt conglomerate occurs immediately to the east of the property masking the eastern limits of the lavas in this area.

MINERALIZATION

There are two types of mineralized occurrences present on the property. These are described as follows:

(1) Pyritic Replacement Deposits - Bodies of pyrite replacing acid pyroclastics occur on patented parcel WD-404. These are some 100 feet long

and 10 to 20 feet wide. Small amounts of pyrrhotite occur spasmodically in the pyrite bodies. The pyrrhotite does not contain important nickel values.

(2) Pyrrhotite-chalcopyrite Replacement Deposits - These mineralized lenses or bodies occur in basic andesitic flows and basic pyroclastics along contact zones with intrusive gabbro. The mineralization consists mostly of pyrrhotite with minor chalcopyrite and pyrite. Pentlandite is the nickel-bearing mineral associated with the pyrrhotite. These minerals occur as disseminations and massive lenses along the favorable contact zones.

GEOPHYSICAL SURVEYS

Object of E-M Survey

1. To investigate the land lying under James Lake, to outline the continuation of the pyrite-bearing structure and any other sulphide deposits associated with this structure.

2. To establish lateral continuity of the known pyrrhotite-chalcopyrite mineralization and to outline other similar zones which may be present.

Theory of the E-M Survey Method

The theory of electromagnetic induction states that if an alternating current is caused to flow in a coil (primary) small concentric magnetic magnetic fields are set up about this coil in a plane at right angles to it. If another coil (secondary) is placed in the magnetic field of this primary field an alternating current is induced in the secondary coil, which sets up a secondary field to oppose the primary field.

This principle is used in the Sharpe Model SE-100 Electromagnetic Survey Unit. Instead of the secondary coil the hidden metallic orebody acts as the secondary coil.

By using a receiver coil and directing the primary field at the receiver coil, the resultant dip of the primary and the induced secondary fields

are measured. These resultant dips plotted on a plan indicate the approximate electrical axis of the subsurface conductor.

RESULTS OF THE E-M SURVEY

1. There were no electromagnetic responses over the known pyrrhotite-chalcopyrite zones nor were there any anomalies outlined which could be interpreted to indicate any new similar occurrences.

2. The survey outlined the known pyrite occurrences and extended the known limits of the zone some 200 feet in a northeasterly direction. There were no anomalies outlined on the land underlying James Lake.

CONCLUSIONS and RECOMMENDATIONS

The results of the electromagnetic survey were inconclusive in that sub-economic to economic mineralization known to occur on the property was not outlined by the survey. The possibility exists that such similar bodies occur elsewhere in the area surveyed and consequently not detected by this method of investigation.

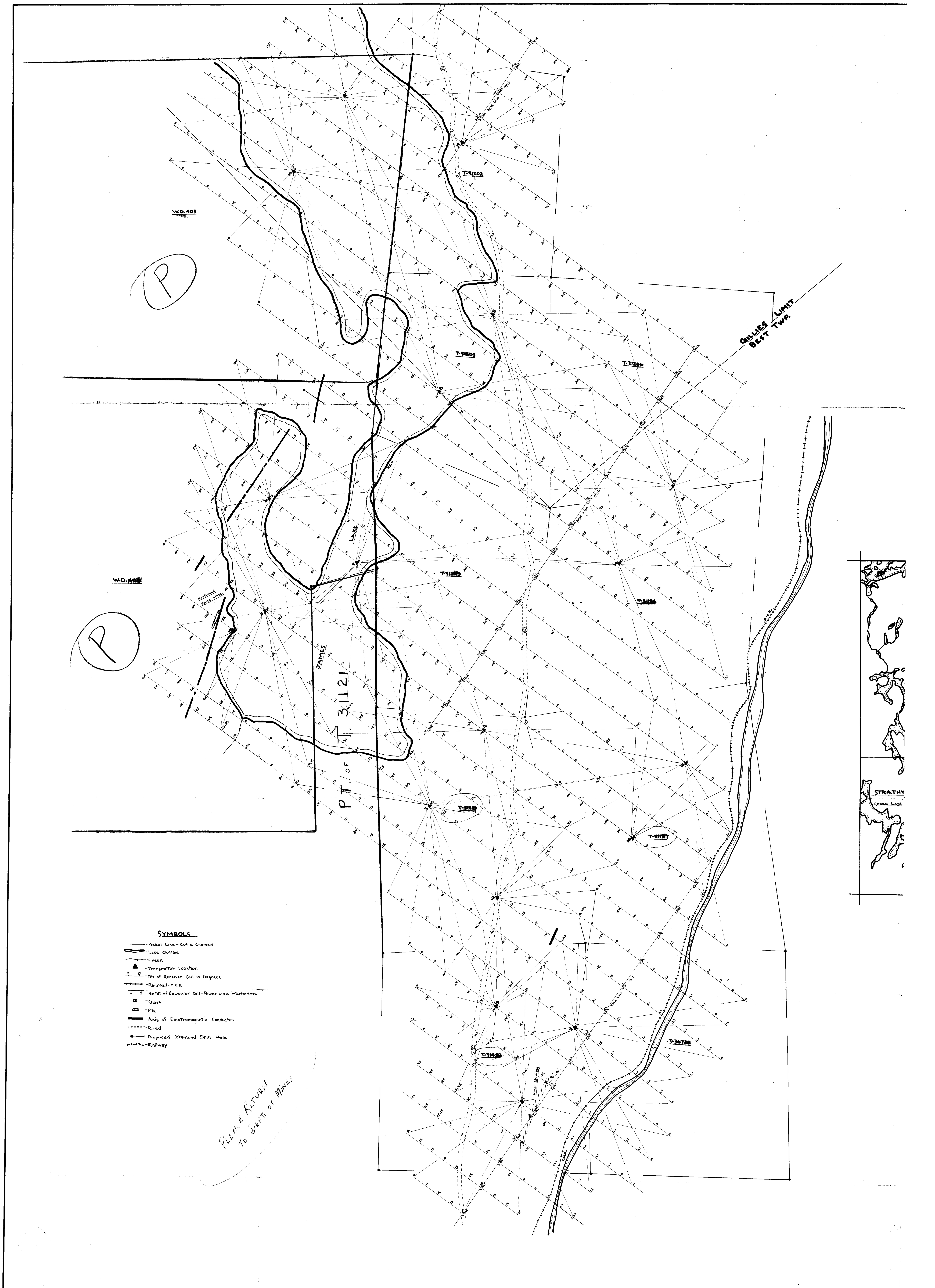
It is recommended that the property be geologically mapped in detail in an endeavour to correlate the known mineralization with structural conditions, alteration and other conditions present. Further investigation of the property will be based on the results of this work.

Respectfully submitted,

SIMARD and KNIGHT

per Michael Zurowski.

Toronto, Ontario
May 17, 1957.



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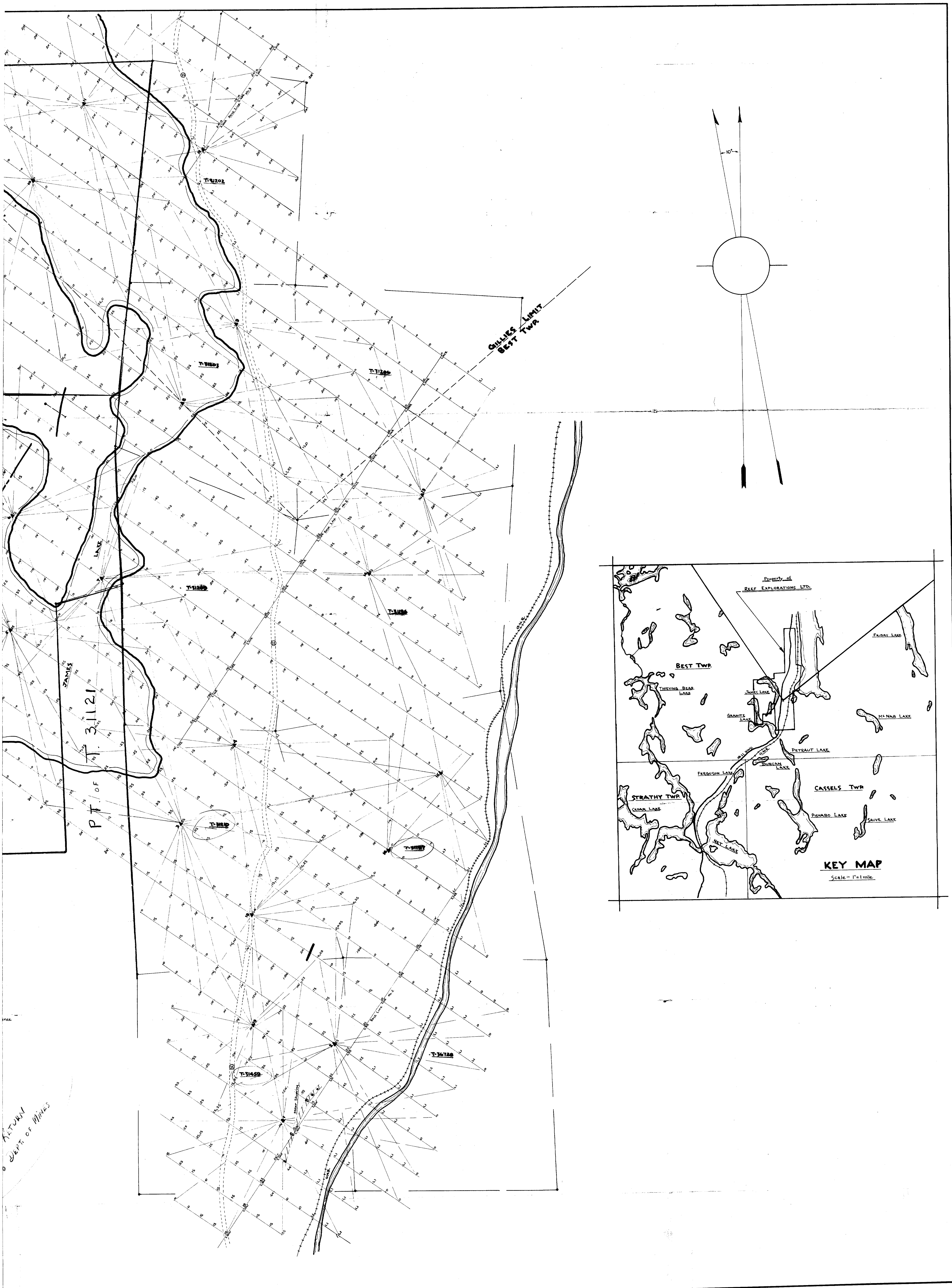

REEF EXPLORATIONS LTD.

BEST TOWNSHIP & GILLIES LIMIT.
TIMISKAMING MINING DIVISION- ONTARIO

ELECTROMAGNETIC SURVEY

Simard & Knight.	SCALE - 1"= 200'	63.853