INTRODUCTION

Project Ivanhoe Group #7 consists of thirty contiguous claims, numbers S120927 to S120938 incl. and S120975 to S120992 incl., located in the southwest corner of Watson Township and adjoining portions of [illegible], Wadsworth and Bedford Township, fifty miles approximately northwest of Timmins, Ontario. The claims were staked in February and recorded in March, 1964.

Exploration was carried out intermittently during the period June 20 to October 14, 1964. Work consisted of a 12 mile picket line system, a magnetometer survey, a vertical loop electromagnetic survey, geological mapping, soil sampling, stripping and trenching.

The work was done by Geophysical Engineering & Surveys personnel under the direct supervision of the writer.

The work was done on and applied to claims S120933, S120934, S120975, S120976, [illegible], S120981, S120984, S120985, S120990 and [illegible]. It will be noted that a portion of grid and survey areas falls outside the boundaries of the above claims. Allowance has been made for this and no assessment credits have been claimed for that work.

Access to the claims is by helicopter from Timmins or by float-type aircraft to [illegible] Lake some two miles to the east of the claims.

MAGNETOMETER SURVEY

The magnetometer survey was made with a Sharpe Fluxgate model M. F. 1 instrument with a scale constant of 20 gammas per scale division. Approximately 500 stations were read at 100 foot intervals along all picket lines. Diurnal readings were taken on permanent base stations at one hour intervals. All readings were corrected and

plotted as shown on the accompanying map.

ELECTROMAGNETIC SURVEY

The electromagnetic survey was done with the Sharpes S. E. 2[illegible] portable vertical loop instrument. Readings were taken at 100 foot intervals on every line using the parallel line method with a receiver - transmitter interval of 400 feet. Following this all cross-overs located were surveyed in detail using the fixed transmitter method with readings at 50 foot intervals on the adjoining lines. In this way each conductor was accurately traced and outlined. Approximately [illegible] stations were read.

The results were plotted as shown on the accompanying map.

GEOLOGICAL MAPPING & PROSPECTING SURVEY

Detailed geological mapping of the grid was completed previous to running the surveys. Following the surveys further work was done in the area of the conductors. At this time 128 soil samples were taken at 10 foot intervals across the overburden covered portions of the conductors. These were tested for copper, zinc and nickel content by spectrographic analysis.

The geology and results of the soil analyses are shown on the accompanying geological map.

STRIPPING & TRENCHING

Six locations where the conductors appeared to lie under shallow overburden were stripped and trenched with an Atlas Copco Cobra gasoline powered rock drill. Samples of the mineralization uncovered were submitted for assay.

RESULTS OF SURVEY

The magnetometer survey outlined a number of lensy anomaly trends following the trend of the formations. These would appear to be caused by magnetite in the formations.

The electromagnetic survey outlined a multitude of conductors, some of which are very strong and can be traced throughout the entire length of the grid. Some of these correlate rather poorly with the geochemical anomalies.

The geochemical survey yielded a number of strong coinciding anomalous copper-nickel areas, these located in sections of shallow overburden. Results in areas of deep overburden were seldom above background.

The geological mapping located numerous in the west one-third of the grid. These consist of quartzites, biotite-garnet-quartz gneiss with bands of garnetiferous hornblende-biotite-quartz gneiss containing sulphides. The sulphide mineralization consists of pyrite and pyrrhotite in disseminated grains and massive seams, stringers and narrow veins.

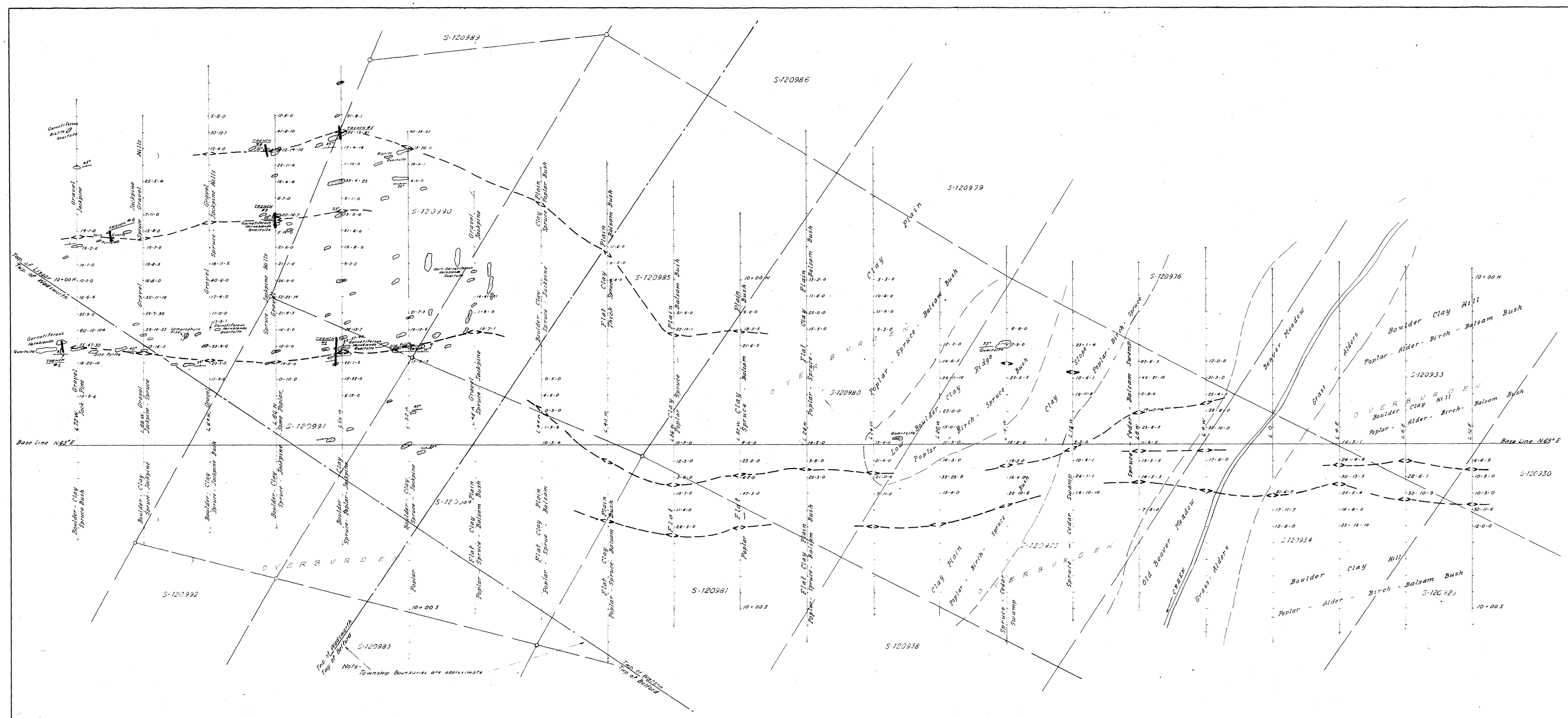
The conductors and geochemical anomalies coincide closely with these mineralized horizons and obviously cause them. The amount of mineralization is not sufficient to give conductors of strength obtained thus it is suspected that graphite is present. Graphite was located in drilling on the same conductor system some two miles to the southwest.

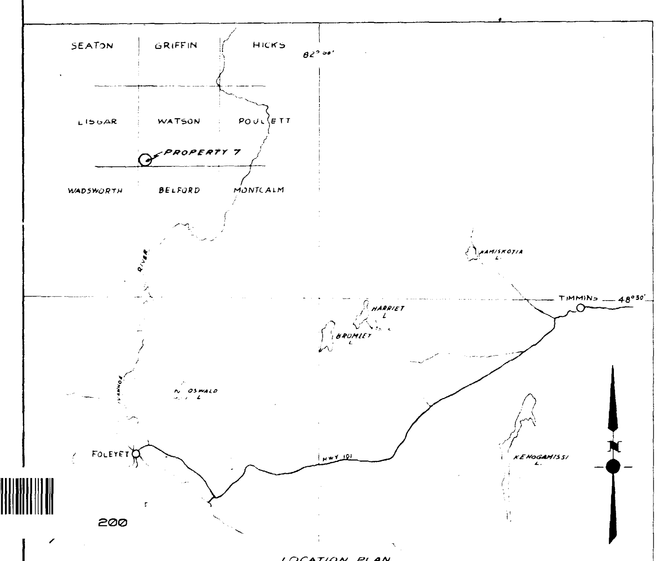
Strike of the formations is quite uniformly N 60° E and dip 35° to 45° to the north. The conductors indicate a gentle fold in the west central part of the grid.

Conclusions and Recommendations

The conductors and geochemical anomalies are caused by hornblende gneiss beds containing sulphides and probably graphite. Surface sampling gave low values in copper only.

No further work is recommended.





TRENCH	LENGTH	WIDTH	VOLUME	ROCK TYPE	MINERALIZATION	SAMPLE No.	COPPER%	NICKEL%	ZINC%	MOLY%
No. 1.	100'	2'5.	2500 Cu.ft.	Garnet - Biotite - Quartz and Gneiss.	Seams & Disseminated Pyrite & Pyrrhotite. Some Chalcopyrite	5818	0.09	Trace	NIL	NIL
						5819	0.07	NIL	Trace	NIL
No. 2.	75'	2.5'	1875 Cu.ft.	Garnet - Biotite - Quartz - Gneiss	None					
No. 3.	75'	2.5'	1875 Cu.ft.	Garnet - Biotite - Quartz - Gneiss	Disseminated Sulphides & Molybdenite	5820	0.07	NIL	NIL	NIL
No. 4.	50'	3.0'	1500 Cu.ft.	Garnet - Biotite - Quartz - Gneiss	Seams & Disseminated Pyrrhotite & Pyrite. Some Molybdenite	5821	0.05	NIL	0.05	NIL
						5822	0.04	NIL	NIL	NIL
No. 5	30'	3.0'	900 Cu.ft	Garnet - Biotite - Quartz Gneiss	Stringers & Disseminated Pyrite and Pyrrhotite	5823	0.04	NIL	Trace	
No. 6.	30'	3.0'	1500 Cu.ft.	Garnet - Biotite - Quartz - Gneiss - Quartz Vein.	Seams & Disseminated Pyrrhotite and Pyrite - Molybdenite	5824	0.08	NIL	NIL	0.01
						5825	0.10	Trace	NIL	NIL

LEGEND

10-5-0 P.P.M. Zinc - Copper - Nickel

-<|>- Conductor Axis

- Outline of outcrop - Quartzite, gneiss.

- Strike & dip of bedding.

- Trench.

GEOLOGY & GEOCHEMICAL SURVEY.

OF

PROPERTY 7.

TOWNSHIP OF WATSON

PROVINCE OF ONTARIO.

FOR

KEEVIL MINING GROUP LTD.

BY

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

H. D. McLEOD

SCALE: 1INCH = 200FEET.

0 200 400 600

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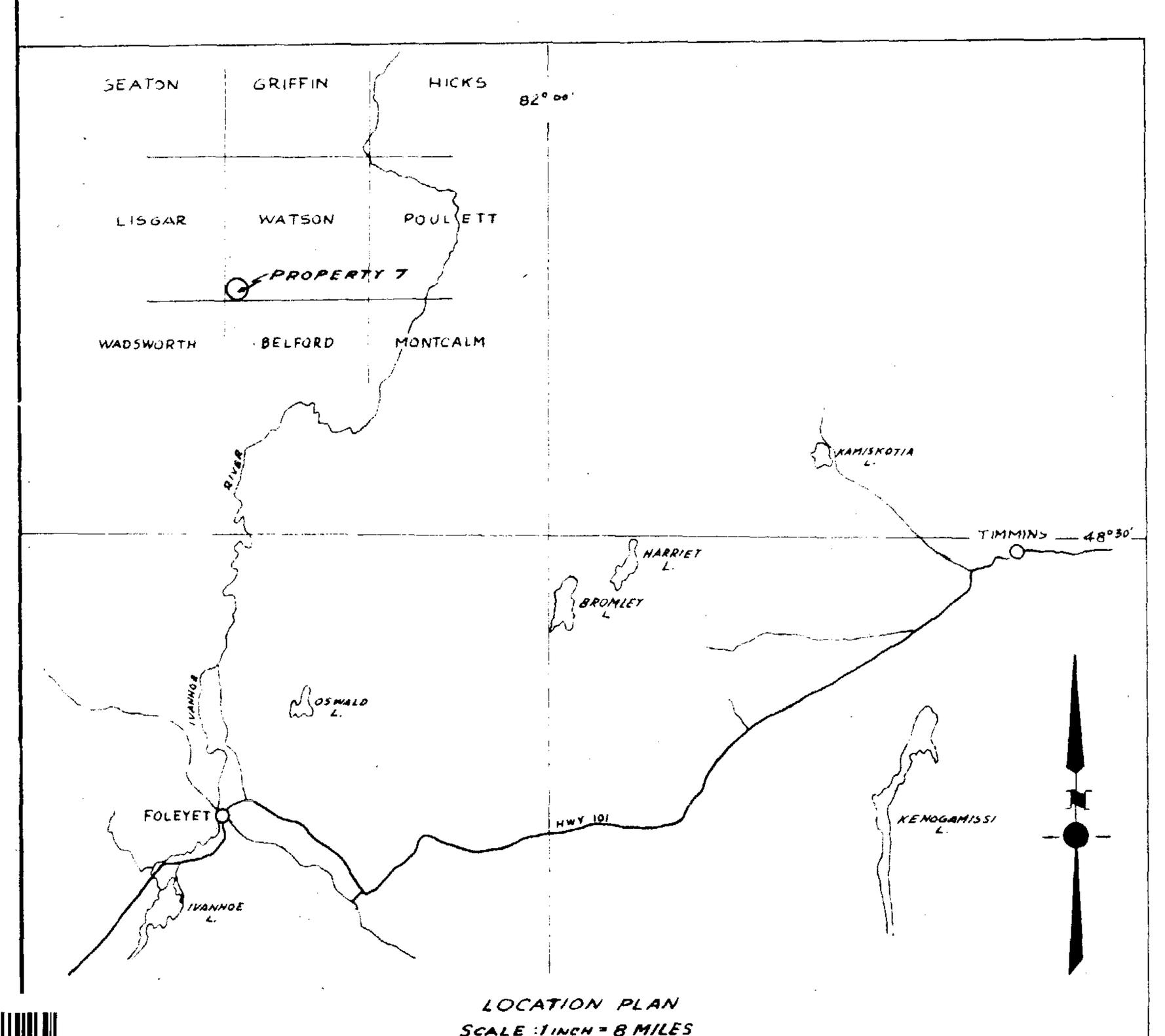

LOCATION PLAN
SCALE 1 INCH = 8 MILES

Note :- Values shown thus -730 -765 are in gammas

Contours shown thus —700— at 100 gamma intervals.

B.S. - Base station.

INSTRUMENT - Sharpes fluxgate Model M.F.1 magnetometer.

OPERATOR - O. Hirschl. D. Maloney.

MAGNETOMETER SURVEY

OF

PROPERTY 7.

TOWNSHIP OF WATSON
PROVINCE OF ONTARIO.

FOR

KEEVIL MINING GROUP LTD.

BY

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

REGISTERED PROFESSIONAL ENGINEER — MINING — H. D. McLEOD — PROVINCE OF ONTARIO

H. D. McLeod Aug 4/65

63.1436

SCALE 1 INCH = 200 FEET

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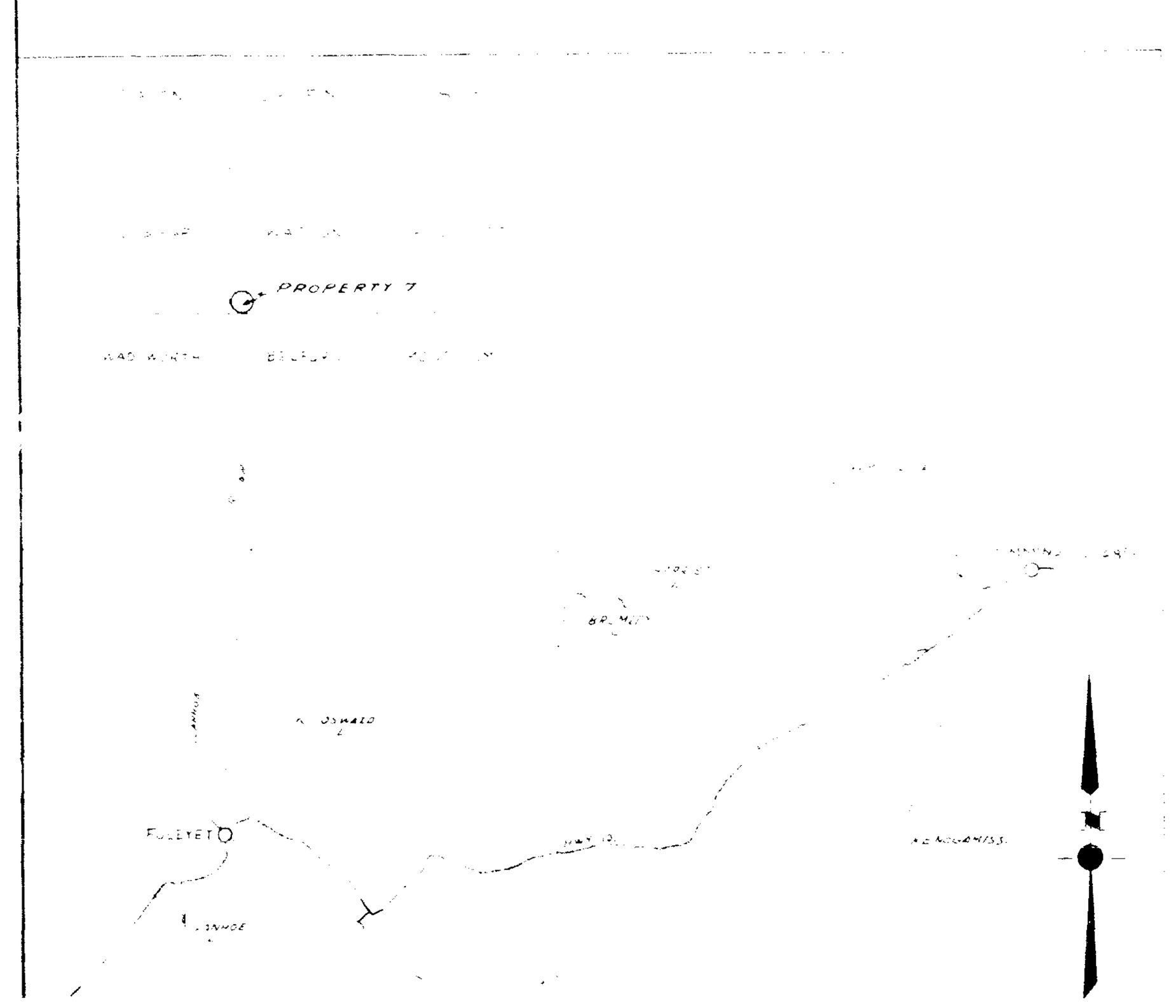

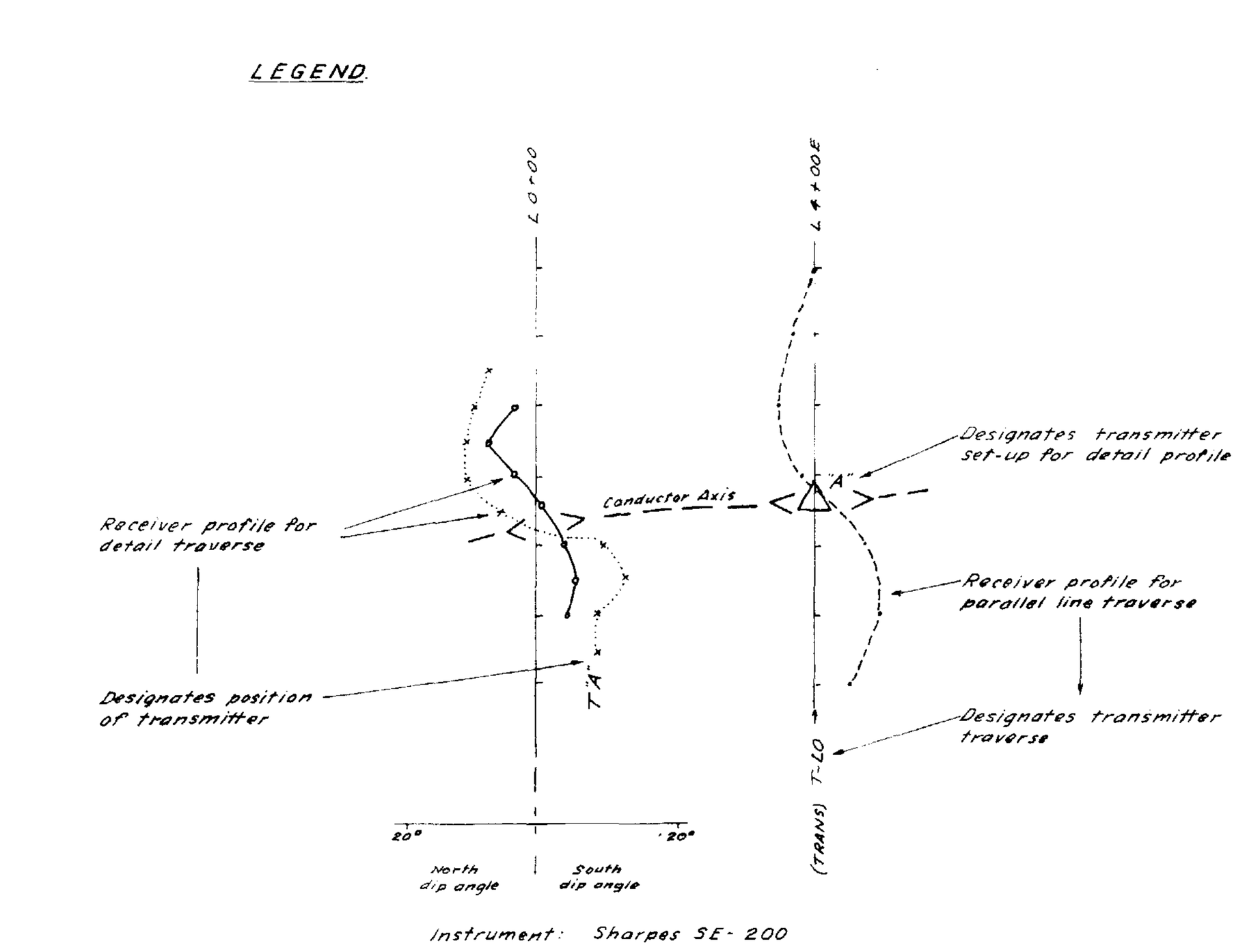

VERTICAL LOOP
ELECTROMAGNETIC SURVEY
OF
PROPERTY 7
TOWNSHIP OF WATSON
PROVINCE OF ONTARIO.
FOR

KEEVIL MINING GROUP LTD.

BY

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED

63.1436

SCALE: 1 INCH = 200 FEET

REGISTERED PROFESSIONAL ENGINEER – MINING – H. D. McLEOD – PROVINCE OF ONTARIO

H. D. McLeod P.Eng. Aug 4/65

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