REPORT 60 P

010

Millerfields Silver Corp. Ltd.

Claims T55650 to T55654 inclusive

T57589 to T57593 inclusive

T55895 to T55900 inclusive

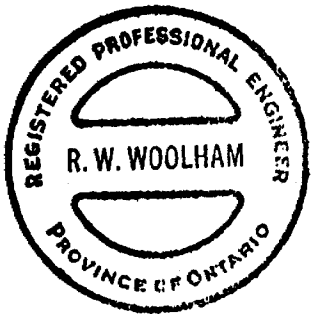
T55894

South Lorrain Twp.

Report on the Geophysical Surveys

April 27, 1966

R. W. Woolham P. Eng.



INTRODUCTION

Millerfields Silver Corp. Ltd. property consists of a number of patented and unpatented claims, located in the Timiskaming Mining Division, South Lorrain Township. Of this claim group the following 17 contiguous claims are being submitted for assessment work.

T55650 to T55654 inclusive

T57589 to T57593 inclusive

T55895 to T55900 inclusive

T55894

All but claims T57591 to T57593 inclusive are lake claims situated on Lake Timiskaming.

The claims were staked and recorded by Millerfields Silver Corp. Ltd., Suite 1000, 11 Adelaide St. W., Toronto, Ontario, the present recorded owners.

The work outlined in this report was done by Geophysical Engineering and Surveys Limited personnel under the direct supervision of the writer. The magnetometer and resistivity surveys were done by A. MacDonnell and crew, 83 Algonquin Blvd. E., Timmins, Ontario.

The field work was done from the period March 16 to April 6 inclusive.

Due to rough topography and winter conditions the land portion of the claims was not surveyed.

LOCATION

The property is located in the north east part of South Lorrain Township in the Cobalt silver mining area of Ontario. It is in part on the west shore of Lake Timiskaming and in part adjoining water claims to the east on Lake Timiskaming. The Claims are situated

4½ miles north of the mouth of the Montreal River and east of Silver Centre.

ACCESS

An all weather road, Highway #567 leads south from North Cobalt on Highway #11B to South Lorrain Twp. The property is approximately 21 miles from North Cobalt. The last three miles of road from Highway 567 is not kept open in the winter months and skidoo vehicles must be used. The property is easily accessible by float or ski equipped aircraft.

GEOLOGY

Nipissing diabase sill rocks outcrop on the property on the lakeshore. These intrusive rocks form a basin shaped structure with its axis in an east-westerly direction. Underlying the diabase is a wedge of Cobalt Series greywackes and conglomerates of Huronian age. This wedge is pinched out between the overlying diabase and the underlying Keewatin lava complex. The Keewatin lava complex has been intruded by lamprophyre dikes and Algoman granite in pre-Huronian age.

SURVEY METHODS

Line Cutting

A distance of 3400' was measured due east of an adit located on the shore of lake Timiskaming (see map). This was designated line 0/00 and a baseline was laid out north and south of this point. Lines were then turned off at 400' intervals east and west of the baseline to cover the claims area.

Approximately 18 miles of line were picketed.

Magnetometer Survey

The magnetometer survey was done with a Sharpe Fluxgate Model

M. F.-1 magnetometer having a constant of 20 gammas per scale division. Readings were taken at 100-foot intervals along all the picket lines with fill-in readings at 50-foot intervals in areas of high magnetic relief. Diurnal readings were taken at 1 to 1½ hour intervals on permanent base stations. The results were corrected, plotted and contoured as shown on the accompanying map.

Approximately 883 readings were taken.

Resistivity Survey

The resistivity survey was done using a vacuum tube voltmeter built by Geophysical Engineering and Surveys Ltd. having a constant of 0.1 millivolts per scale division. Current electrodes were grounded outside the survey areas on the east and west sides of the picket line grid area. The current electrodes were placed in predetermined positions related to the three block dimensions necessary to cover the survey area. i. e. from line 36 N to L 28 S, line 32 S to line 60 S, and line 64 S to line 100 S.

The block dimensions or current electrode configurations are determined from precalculated parameters so that the current distribution is uniform throughout the actual survey area.

Because of the geometry of the current configurations, direct correlation between one resistivity block and another is not possible, unless the geological structure is homogeneous from one block to another. This is apparent between lines 28 S and 32 S.

The current electrode leads were connected to a 60 cycle generator. The potential between two electrodes 100 feet apart was then measured over the whole grid area at 100-foot intervals through predrilled holes in the ice. The current flowing into the ground through the current electrodes was also measured. From these two measurements and the position of the current electrodes

a value for the apparent resistivity plotted midway between the potential electrodes could be calculated. The results are plotted on the accompanying map. Approximately 873 readings were taken.

RESULTS OF SURVEYS

Magnetometer

The magnetics on the lake portion of the claims were very flat with broad east-west trending anomalies of 50 to 100 gammas. Where the lines approach the shore a north-south trend is apparent with some broad anomalies near the shore of up to 1000 gammas above background. Water depths were taken on lines 4 N and 8 N, at 18 W the lake was 200' deep and further measurements were not possible east of 18 W. It was learned from the local inhabitants that depths of up to 700 feet had been measured in the center of the lake. These great depths would explain the broad flat magnetics encountered around the baseline.

The majority of the anomalies can be explained by the presence of diabase sills which are present in this area.

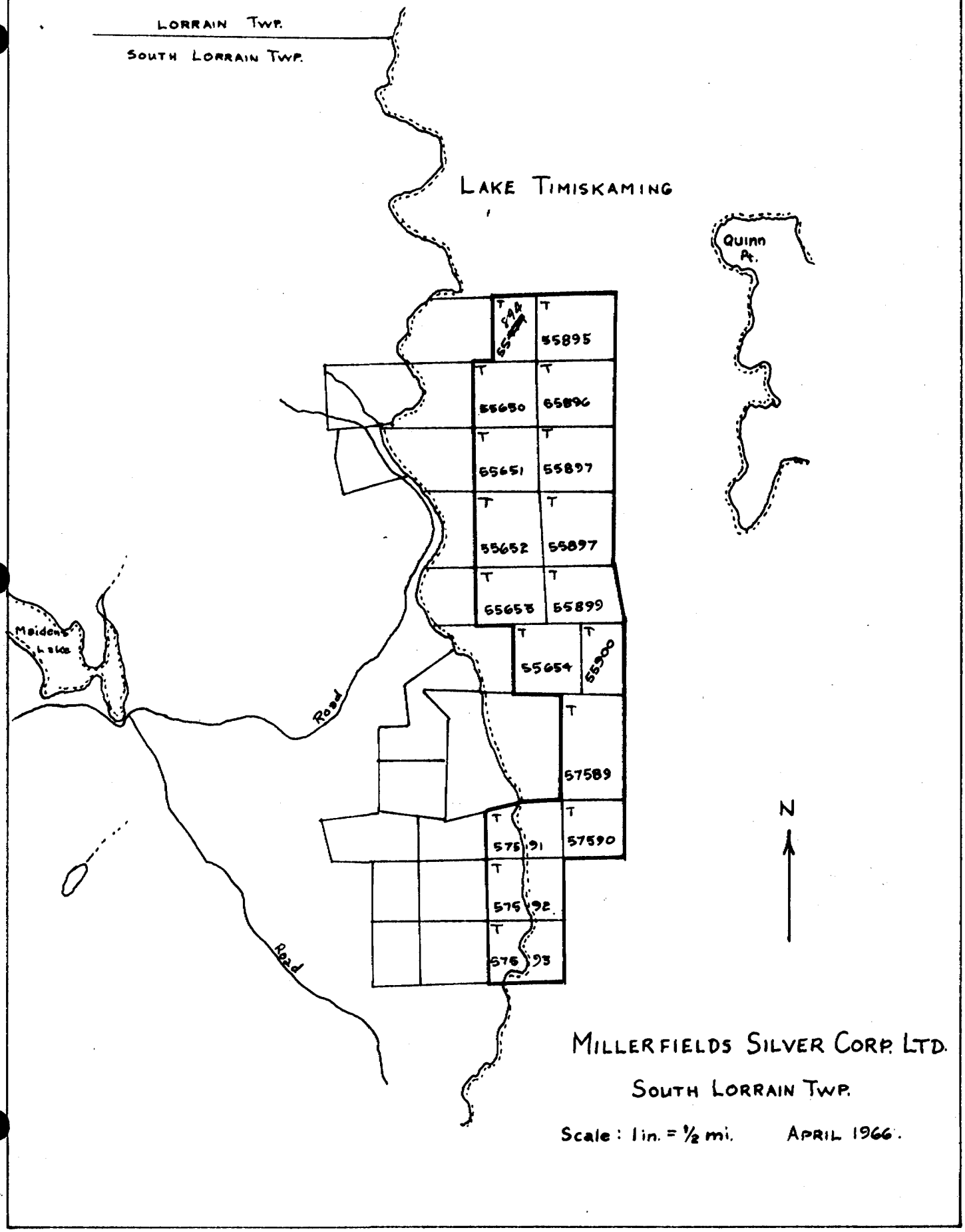
Resistivity

The trend of the resistivity highs partly correlated with the magnetics. Especially noticeable is the north south resistivity high near the shore at the south end of the claims which correlates fairly well with the magnetic high. The lake depth does not effect the resistivity results as much as the magnetics. As a result an east west resistivity high extends to 12 E on Lines 16 S to 28 S. This high is most probably caused by a diabase sill. A less pronounced resistivity high is also apparent in the center of the north sheet adjacent to the above mentioned high. This also can be attributed to diabase sill structure.

SUMMARY AND RECOMMENDATIONS

The magnetometer and resistivity surveys indicated the extension of diabase sills under the lake from line 4 N to 32 S. A further north south trending structure near the shore on the south portion of the claims was also outlined.

Since the greater portion of the claims are under water, and the detection of silver veins in this area is very difficult using geophysical techniques, it is suggested that further thought and geophysical tests should be done to develop a detailed program of geophysics to gain the maximum amount of geological information possible in this area.



MILLERFIELDS SILVER CORP. LTD.

SOUTH LORRAIN TWP.

Scale: 1 in. = ½ mi. APRIL 1966.

JOINING LINE

JOINING LINE

RESISTIVITY BLOCK BOUNDARY

LAKE TIMISKAMING

BASE LINE

24+00 W | 20+00 W | 16+00 W | 12+00 W | 8+00 W | 4+00 W | 0+00 | 4+00 E | 8+00 E | 12+00 E

L-36 S
L-40 S
L-44 S
L-48 S
L-52 S
L-56 S
L-60 S
L-64 S
L-68 S
L-72 S
L-76 S
L-80 S
L-84 S
L-88 S
L-92 S
L-96 S
L-100 S

26501
57589
57591
57590
57592
57593

Note:
Values shown thus 34/30 are Apparent Resistivities in units of Ohm Meters X 10^2.

Contour Interval: 1000 Ohm Meters

Instrument: 60~ Generator V.T.V.M.

Operator: A. MacDonnell

SOUTH SECTION OF MAP

RESISTIVITY SURVEY

OF

PORTION OF LAKE CLAIMS

SOUTH LORRAIN TWP. ONTARIO.

FOR

63.1932.

MILLERFIELDS SILVER CORP. LTD.

BY

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

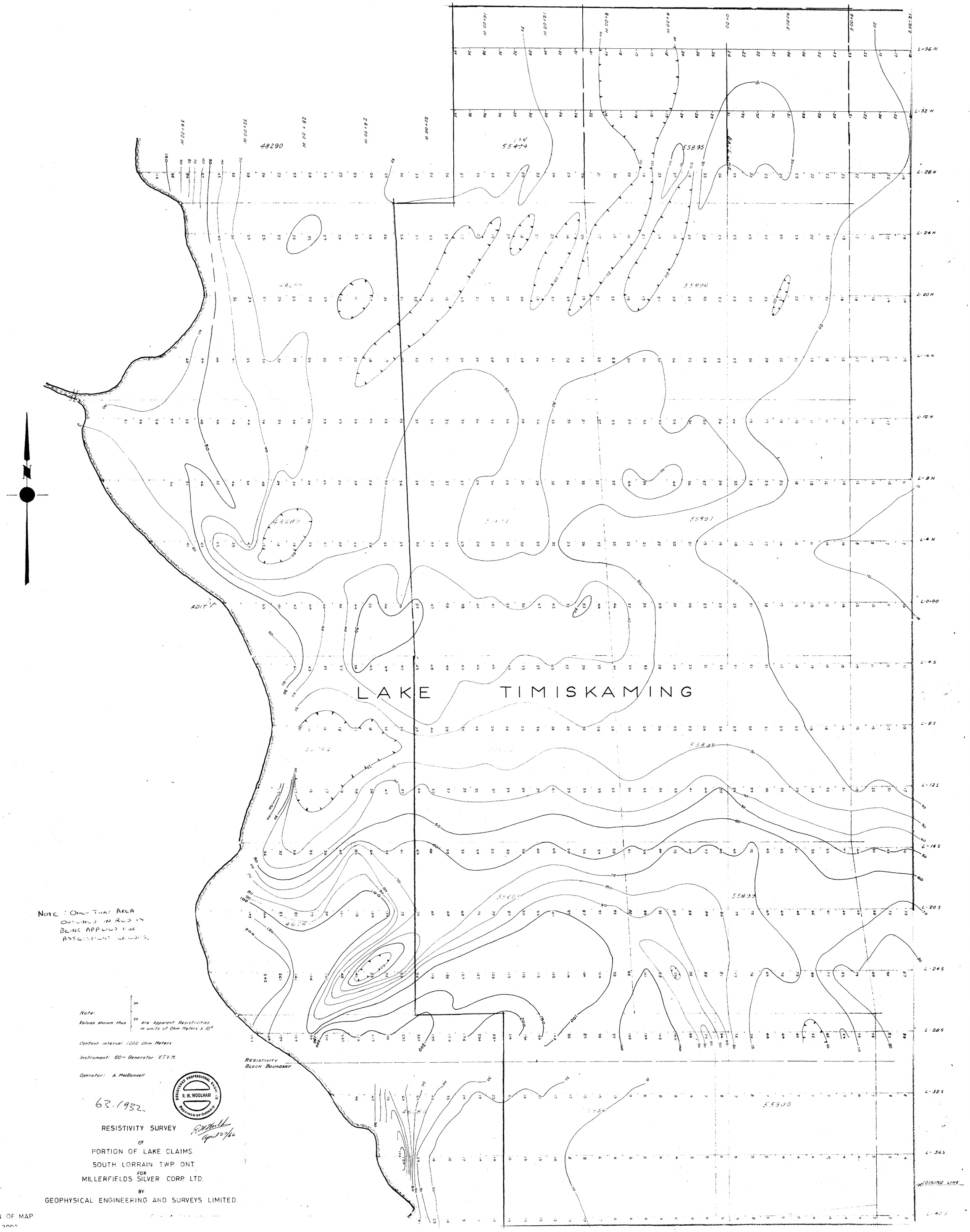
Scale: 1 inch = 200 feet.

0 200 400 600

REGISTERED PROFESSIONAL ENGINEER R.W. WOOLHAM PROVINCE OF ONTARIO

April 27/66

1966	JOB 812	DWG. 3092



NOTE : ONLY THAT AREA OUTLINED IN RED IS BEING APPLIED FOR ASSESSMENT CREDITS.

Note:
Values shown thus 36 / 30 are Apparent Resistivities in units of Ohm Meters x 10^2

Contour interval 1000 Ohm Meters

Instrument: 60~ Generator V.T.V.M.

Operator: A. MacDonnell

63.1932.

REGISTERED PROFESSIONAL ENGINEER R. W. WOOLHAM PROVINCE OF ONTARIO

April 27/60

RESISTIVITY SURVEY

OF

PORTION OF LAKE CLAIMS

SOUTH LORRAIN TWP. ONT.

FOR

MILLERFIELDS SILVER CORP. LTD.

BY

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

RESISTIVITY BLOCK BOUNDARY

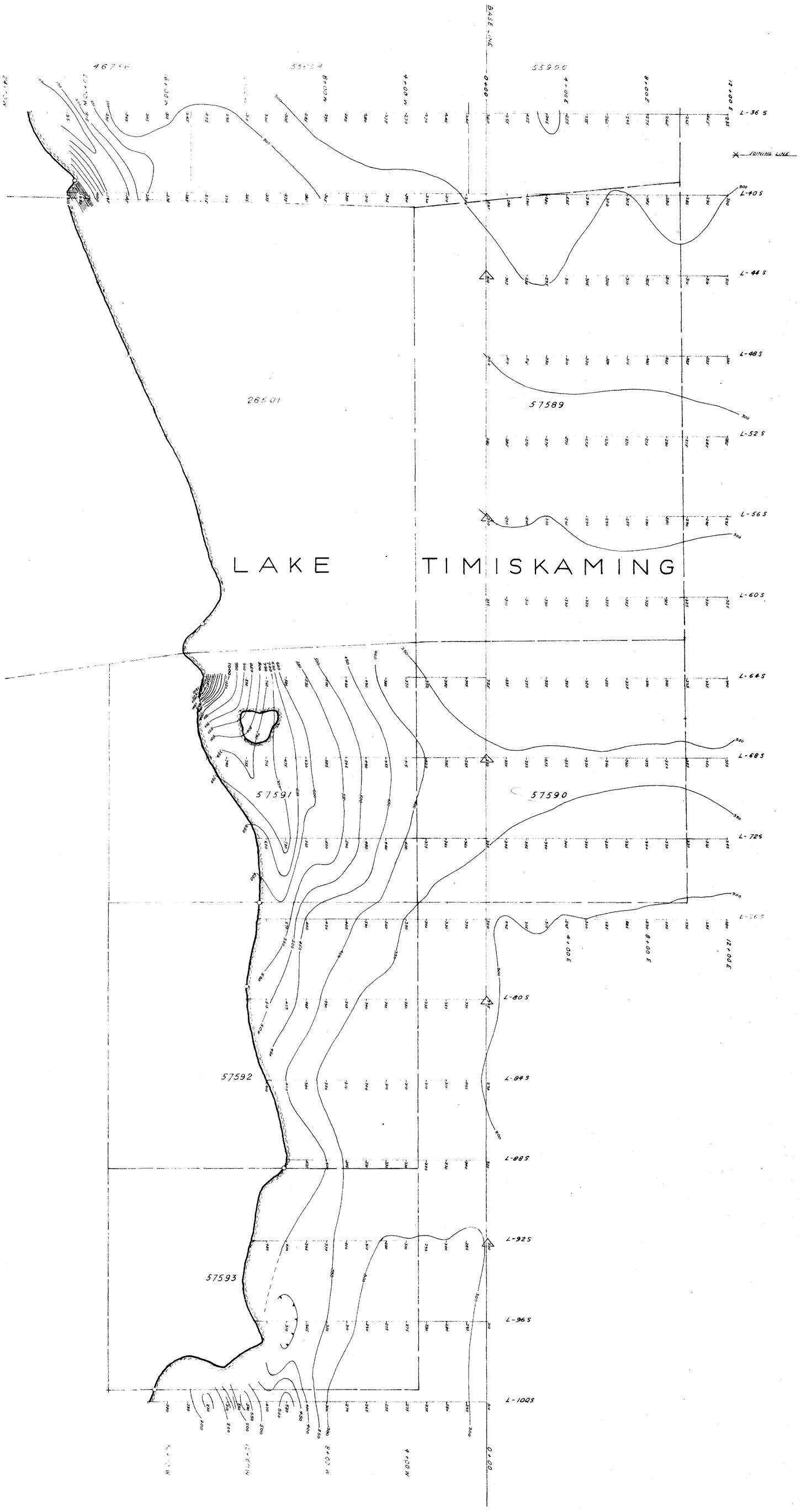
JOINING LINE

JOINING LINE

UPPER SECTION OF MAP

DRAWING 2002

JOINING LINE



Note:

Values shown thus 520 / 480 are in gammas

Contours shown thus (500) are at 50 gamma intervals

Instrument: Sharpe Fluxgate Magnetometer Model MF-1.

Operator: A. MacDonnell.

△ Base Station

SOUTH SECTION OF MAP

MAGNETOMETER SURVEY

OF

PORTION OF LAKE CLAIMS

SOUTH LORRAIN TWP. ONTARIO.

FOR 63.1932.

MILLERFIELDS SILVER CORP. LTD.

BY

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

Scale: 1 inch = 200 feet.

0 200 400 600

REGISTERED PROFESSIONAL ENGINEER R. W. WOOLHAM PROVINCE OF ONTARIO

April 2/64

766	JOB 812	DWG. 3091

LAKE TIMISKAMING

NOTE: ONLY THAT AREA OUTLINED IN RED IS BEING APPLIED FOR ASSESSMENT CREDITS

Note:
Values shown thus 520 / 490 are in gammas

Contours shown thus —500— are at 50 gammas

Instrument: Sharpe Fluxgate Magnetometer Model MF-1.

Operator: A. MacDonnell.

B.S. Base Station

REGISTERED PROFESSIONAL ENGINEER
R. W. WOOLHAM
PROVINCE OF ONTARIO

April 27/66

MAGNETOMETER SURVEY
OF
PORTION OF LAKE CLAIMS
63.1932 SOUTH LORRAIN TWP. ONT.
FOR
MILLERFIELDS SILVER CORP. LTD.
BY
GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

Drawn by: N.S. APL 1966

JOINING LINE

UPPER SECTION OF MAP
DRAWING 3091.