



42A08SE0194 2.3849 MAISONVILLE

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REPORT  
ON  
MAGNETOMETER SURVEY  
ON PROPERTIES OF  
GOLIATH MINES LTD.  
MAISONVILLE TOWNSHIP, ONTARIO

**RECEIVED**

APR 24 1981

MINING LANDS SECTION

REPORT  
ON  
MAGNETOMETER SURVEY  
ON PROPERTIES OF  
GOLIATH MINES LTD.  
MAISONVILLE TOWNSHIP, ONTARIO

INTRODUCTION

Goliath Mines Ltd. is the holder of three separate claim groups in Maisonville Township, Ontario. In February of 1980, a V.L.F. (very low frequency) electromagnetic survey was carried out over the claim groups to outline potential gold-bearing zones. The results of these surveys are described in our report dated April 13, 1980.

Prior to a diamond drilling programme, a magnetometer survey has been completed over the same network of lines used for the electromagnetic survey. The following report and accompanying maps describe the results of the surveys.

PROPERTIES

The claim groups are referred to as A, B, and C groups as shown on the accompanying map. The claims are registered as follows:

Group A:       L512751 to L512755  
                  L512757 to L512760

Group B:       L 575505 to L575512

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PROPERTIES (cont'd)

Group C: L575514 - L575515  
L575517 to L575519  
L512756

GEOLOGY

The geology is described in our earlier report of April 13, 1980. The gold occurrences in the area are usually found in quartz and quartz-carbonate veins and shear zones in volcanic rocks adjacent to mafic or ultramafic intrusives.

SURVEY METHOD AND INSTRUMENT DATA

The magnetometer survey was conducted over the same network of lines as the electromagnetic survey. The equipment used was a Fluxgate MF-2 magnetometer, measuring the relative values of the vertical component of the earth's magnetic field.

The measurements are plotted on the accompanying map as gammas after correction for diurnal variation. The readings have been contoured at 500 gamma intervals and the conductive zones have been superimposed on the map to aid in the interpretation.

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RESULTS OF THE GEOPHYSICAL SURVEYS

The results from the three claim groups are shown on the one map on a scale of 400 feet to the inch. In the earlier electromagnetic survey, there were a number of north trending conductive zones, some of which could represent a shear zone, making them a prime target for possible gold mineralization.

The most significant of the conductive zones is a long continuous zone on Group A that extends for some 6,000 feet across the claim group in a northerly direction. This is quite a strong zone and the same structure may extend to the south onto Group B as shown by several discontinuous conductive zones.

An examination of the magnetic map shows the background on Group A to be about 2,500 gammas. However, at the north end, the readings gradually increase to a high of almost 5,000 gammas. The highest readings are at the north-end of the property, suggesting that it is the edge of a more basic formation, possibly an ultramafic intrusive. The rocks to the south are probably volcanics. On this basis, the north-end of the conductor would be the most favourable for gold mineralization as the gold occurrences have usually been found in the volcanics adjacent to mafic or ultramafic intrusives.

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RESULTS OF THE GEOPHYSICAL SURVEYS (cont'd)

Group B has somewhat lower and more uniform magnetic readings suggesting a more uniform rock formation with less potential for a shear zone. Investigation of the conductive zone to the north on Group A will help in the interpretation of the geophysics on this group.

Group C likewise has fairly uniform magnetic readings with the exception of a small anomalous area on claim 575518. This may represent a small ultramafic plug intruding the volcanics. There is a fairly strong conductor just to the north of the magnetic high that could represent a shear zone and warrants further investigation.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of both surveys, the most significant zone is the continuous conductive zone on Group A. This is a potential shear zone that would appear to extend from an intrusive rock southward into probably volcanics. The area in the vicinity of the probable contact should be the most favourable environment for gold mineralization.

Thus, the northerly end of the conductor is recommended as the initial target for diamond drilling. The results of the initial drilling will give considerable geological


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CONCLUSIONS AND RECOMMENDATIONS

information for a better interpretation of the other  
conductive zones. A second priority target is on Group C  
on the conductor just north of the small magnetic anomaly.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.



H. J. Bergmann, P. Eng.

Toronto, Ontario  
March 4, 1981

GEOPHYSICAL - GEOLOGICAL  
TECHNICAL DATA



900

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 Magnetometer  
Township or Area Maisonville  
Claim holder(s) D McKinnon 1759 Denise Street  
Simmons Cnd. P400 7MS  
Author of Report H. J. Bergmann  
Address 70 Chiswell Crescent, Willowdale, Ont  
Covering Dates of Survey Dec. 12, 1980 - March 2, 1981  
(linecutting to office)  
Total Miles of Line cut \_\_\_\_\_

MINING CLAIMS TRAVERSED  
List numerically

(prefix)	(number)
L512751	✓
L512752	✓
L512753	✓
L512754	✓
L512755	✓
L512757	✓
L512758	✓
L512759	✓
L512760	✓
L575505	✓
L575506	✓
L575507	✓
L575508	✓
L575509	✓
L575510	✓
L575511	✓
L575512	✓
L575514	✓
L575515	✓
L575517	✓
L575518	✓
L575519	✓
L512756	✓

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	Geophysical	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic _____	_____
ENTER 20 days for each additional survey using same grid.	-Magnetometer _____	20
	-Radiometric _____	_____
	-Other _____	_____
	Geological _____	_____
	Geochemical _____	_____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)  
Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: April 10, 1981 SIGNATURE: H. J. Bergmann  
Author of Report

PROJECTS SECTION  
Res. Geol. \_\_\_\_\_ Qualifications 63,1061  
Previous Surveys \_\_\_\_\_  
Checked by \_\_\_\_\_ date L.D  
GEOLOGICAL BRANCH \_\_\_\_\_  
Approved by \_\_\_\_\_ date \_\_\_\_\_  
GEOLOGICAL BRANCH \_\_\_\_\_  
Approved by \_\_\_\_\_ date \_\_\_\_\_

OFFICE USE ONLY

TOTAL CLAIMS 23

**GEOPHYSICAL TECHNICAL DATA**

**GROUND SURVEYS**

Number of Stations 970 Number of Readings 978  
Station interval 100'  
Line spacing 400'  
Profile scale or Contour intervals 500 gammas  
(specify for each type of survey)

**MAGNETIC**

Instrument Fluxgate MF-2  
Accuracy - Scale constant ↑ 5 gammas  
Diurnal correction method Base station  
Base station location See map

**ELECTROMAGNETIC**

Instrument \_\_\_\_\_  
Coil configuration \_\_\_\_\_  
Coil separation \_\_\_\_\_  
Accuracy \_\_\_\_\_  
Method:  Fixed transmitter  Shoot back  In line  Parallel line  
Frequency \_\_\_\_\_  
(specify V.L.F. station)  
Parameters measured \_\_\_\_\_

**GRAVITY**

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

**INDUCED POLARIZATION - RESISTIVITY**

Instrument \_\_\_\_\_  
Time domain \_\_\_\_\_ Frequency domain \_\_\_\_\_  
Frequency \_\_\_\_\_ Range \_\_\_\_\_  
Power \_\_\_\_\_  
Electrode array \_\_\_\_\_  
Electrode spacing \_\_\_\_\_  
Type of electrode \_\_\_\_\_



BENOIT TWP. - M.326

THE TOWNSHIP  
OF  
**MAISONVILLE**

DISTRICT OF  
TIMISKAMING

LARDER LAKE  
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

**LEGEND**

- PATENTED LAND ● or P
- CROWN LAND SALE C.S.
- LEASES L
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED C.
- PATENTED S.R.O. ○

**NOTES**

400' surface rights reservation along the shores of all lakes and rivers.

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970. (Sec. 42, R.S.O. '60).

Order No.	File	Date	Disposition
(1) 11821			S.R.O.
(2) 22032		11/8/70	S.R.O.
(3) NR. 5/81	22032	23/1/81	S.R.O.

All islands in Sesekinika Lake are withdrawn from staking by Order-in-Council dated Dec. 7, 1921.

DATE OF ISSUE

FEB 15 1982

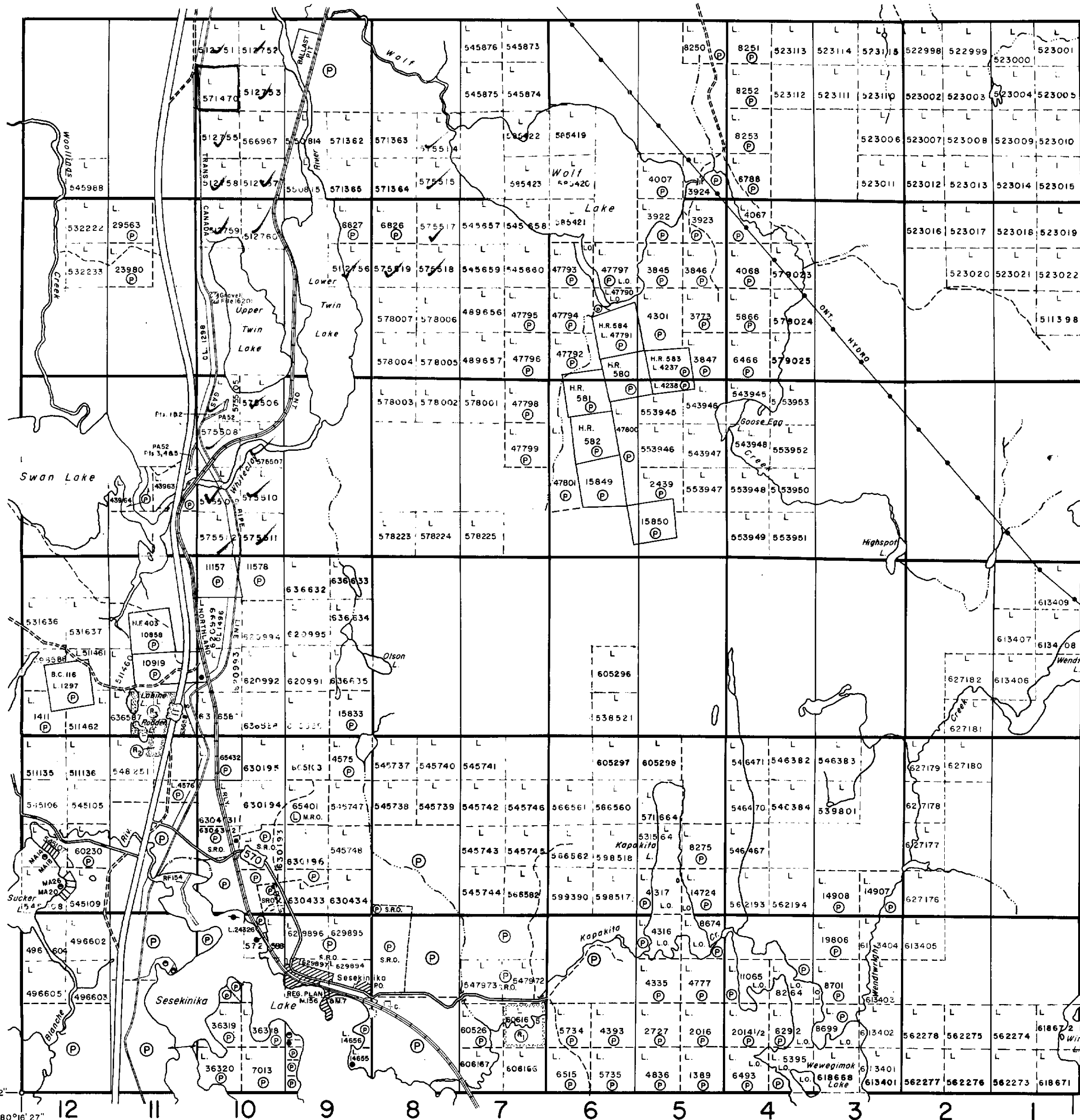
Ministry of Natural Resources  
TORONTO

PLAN NO. **M.361**

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

LEE TWP. - M.360

BERNHARDT TWP. - M.327

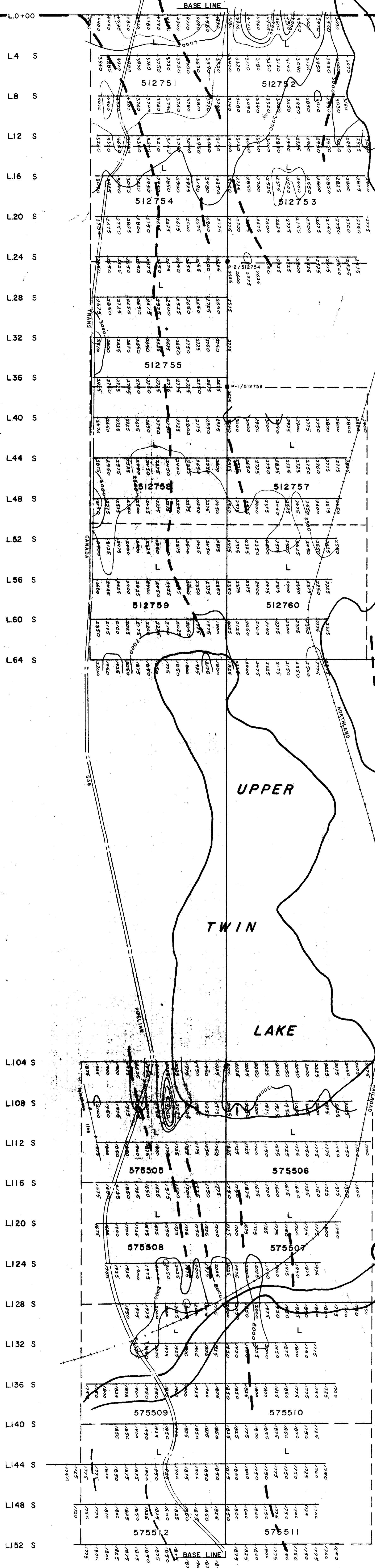


GRENFELL TWP. - M.351

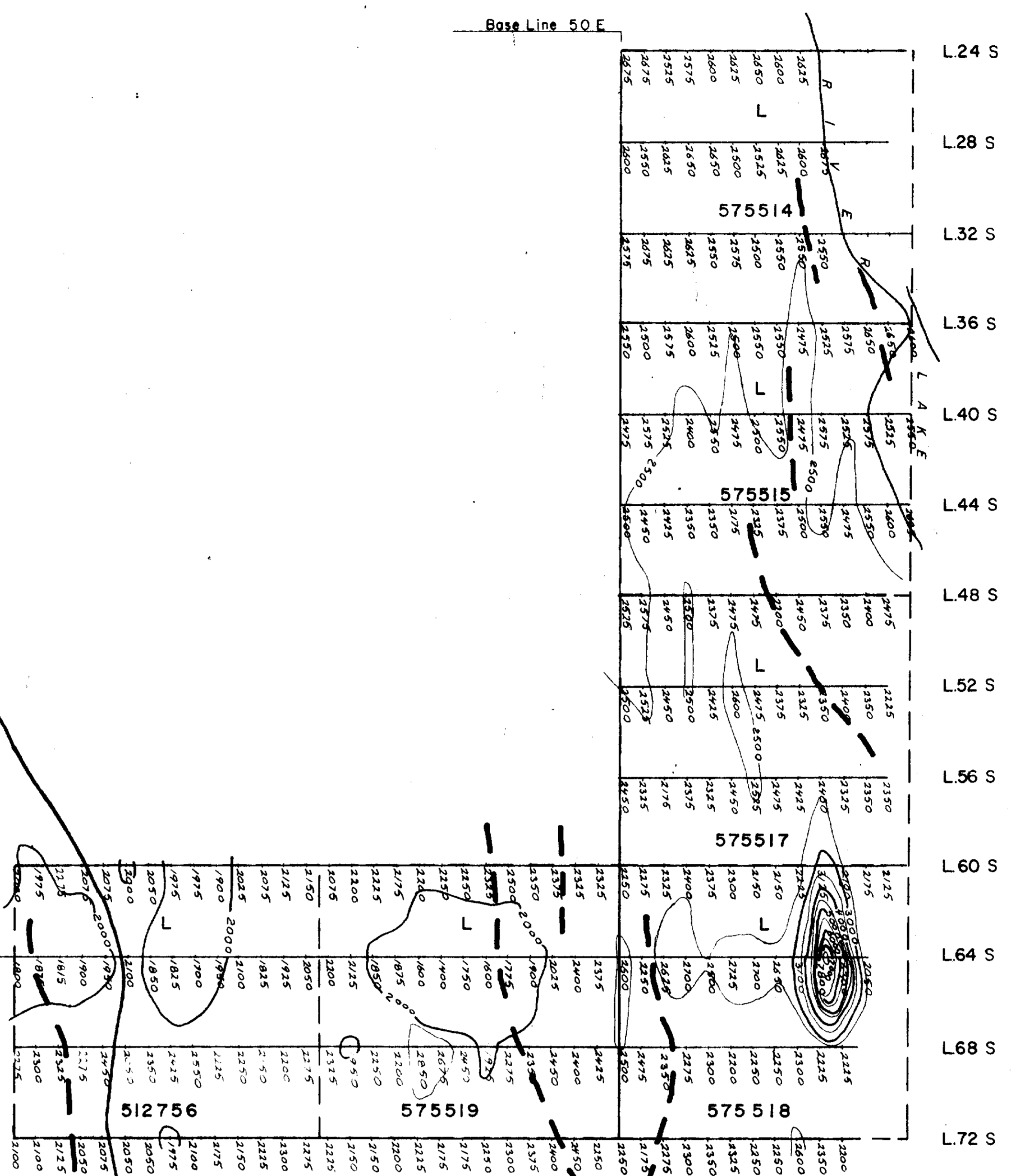


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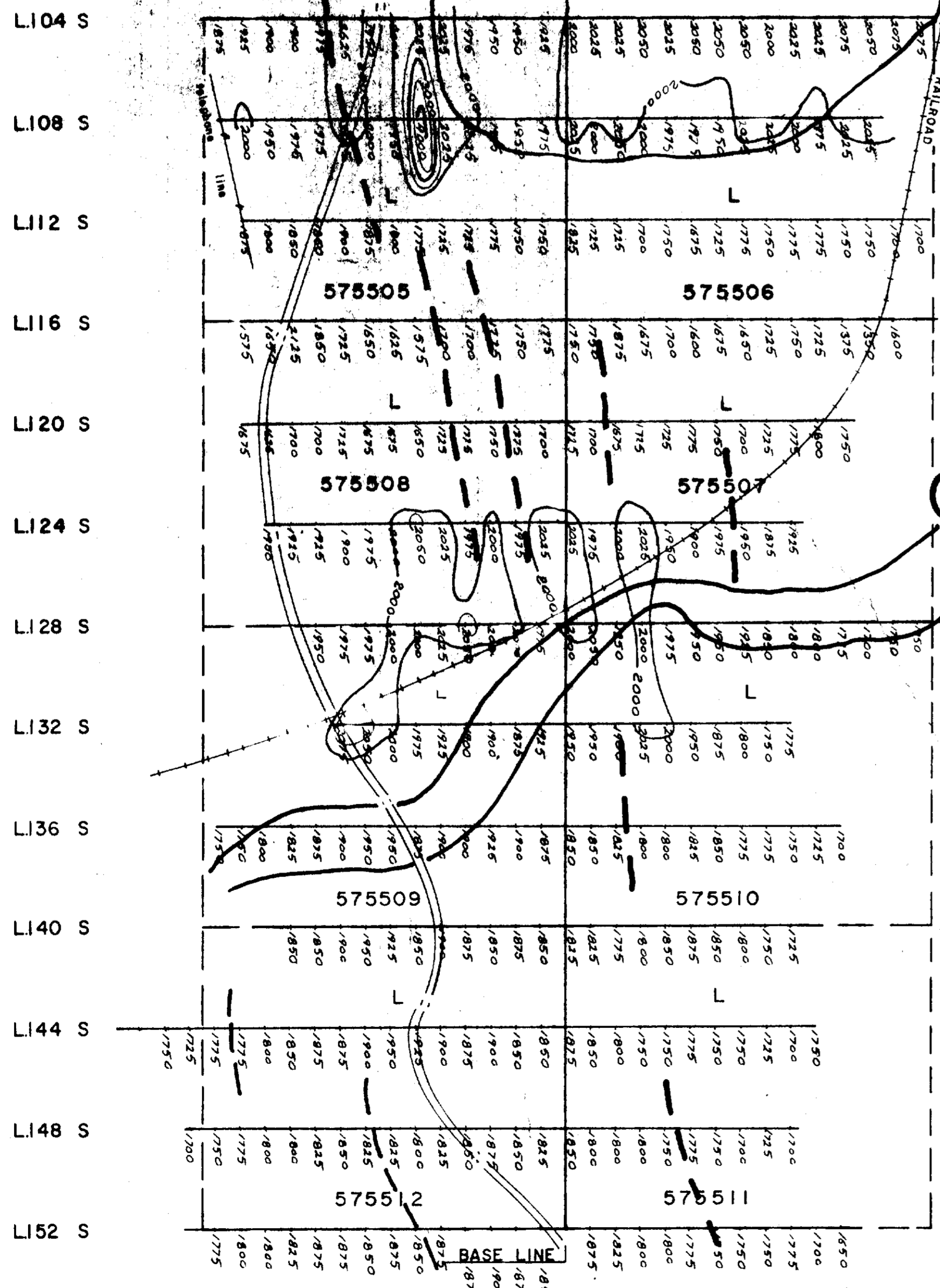
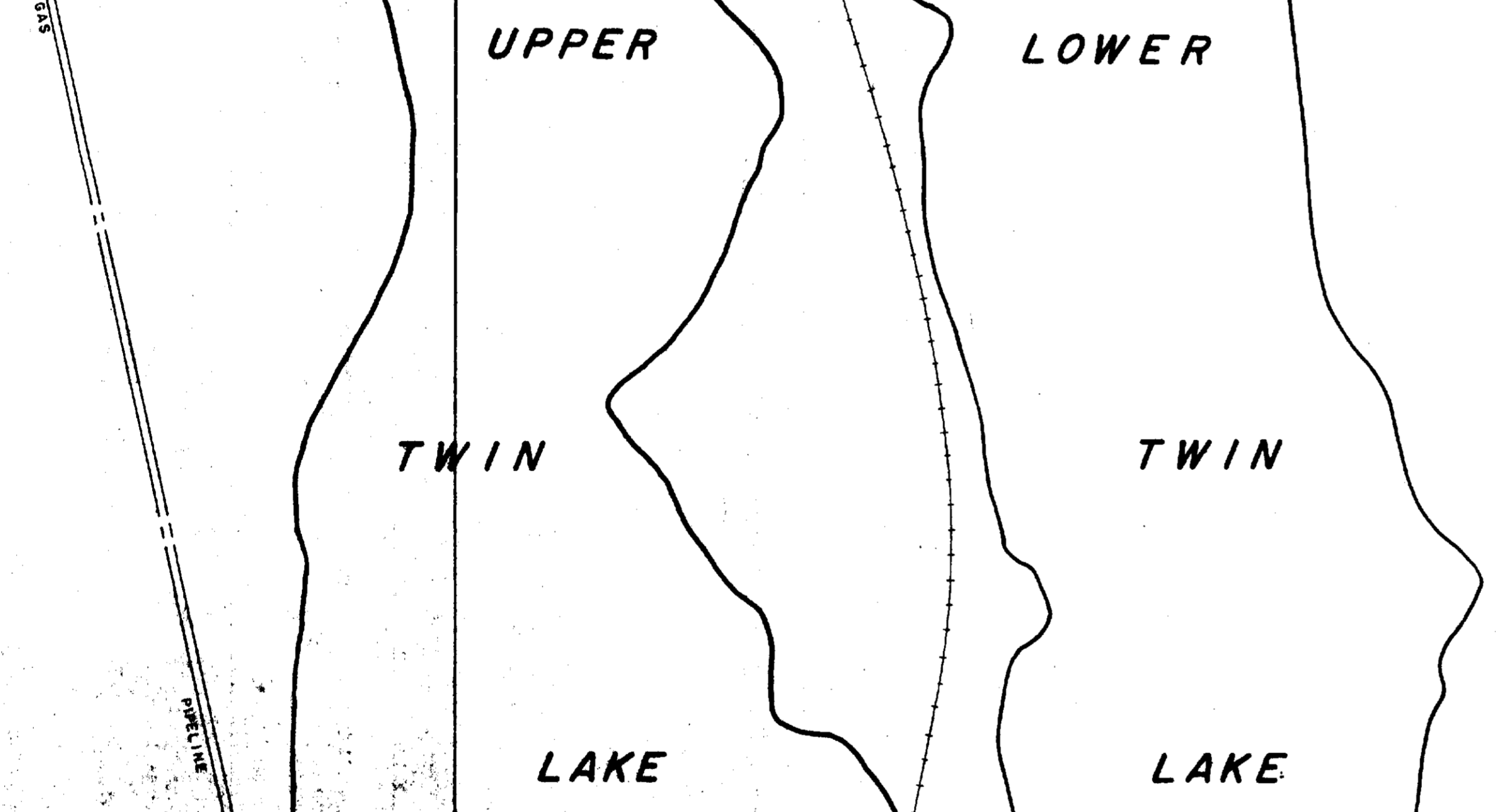
BENOIT TWP.  
MAISONVILLE TWP.



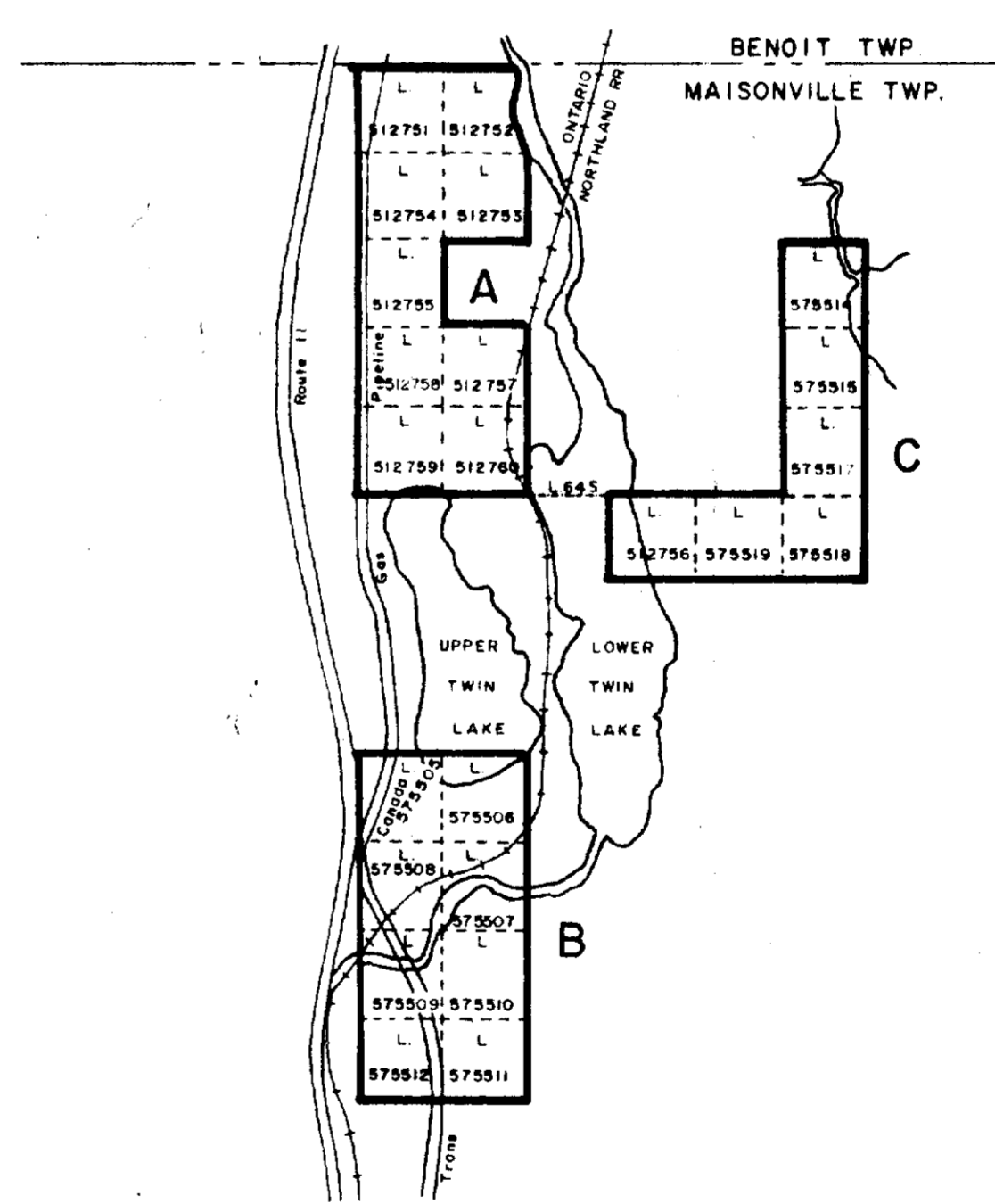
GRID A



GRID C



GRID B



CLAIM MAP  
SCALE 1:50 000

LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
  - RELATIVE VALUES OF THE VERTICAL COMPONENT FORCE OF THE EARTH'S MAGNETIC FIELD (in Gammas)
  - MAGNETIC CONTOURS
  - △ BASE STATION
  - ELECTRICAL CONDUCTOR
  - TO — GAMMAS
  - TO — GAMMAS
  - OVER — GAMMAS
- INSTRUMENT USED: FLUXGATE MF - 2

TYPE OF WORK		MAGNETOMETER SURVEY	
CLIENT		GOLIATH MINES LTD.	
PROJECT	AREA	MAISONVILLE TWP, ONT	
SCALE	1" = 400 ft.	DATE	FEB., 1981
DRAWN BY	8	MAP OR SHEET NO.	2

PROSPECTING GEOPHYSICS LTD.

