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JUN 26 1981

MINING LANDS SECTION

REPORT ON GEOPHYSICAL SURVEY

HIGH LAKE AREA

DISTRICT OF KENORA

PROJECT CODE 1245

N.T.S. 52-E-11-NW_E M-1975

JUNE 1981

Author Peter Hannigan

Sherritt Gordon Mines Ltd.

P.O. BOX 723, CLAYBANKS ROAD · DRYDEN, ONTARIO P8N 2Z4 · (807) 223-5880

REPORT ON GEOPHYSICAL SURVEY
HIGH LAKE AREA, ONTARIO
Ewart Township District of Kenora
N.T.S. 52-E-11-NW (M-1975)
Project Code 1245
Claims 489285-489303 inclusive

INTRODUCTION

This report concerns the work performed by SHERRITT GORDON MINES LIMITED in Ewart Township near High Lake (N.T.S. 52-E-11-NW). This survey was started in the winter of 1981 in February and finally completed after breakup in May of 1981.

This property is located on and adjacent to High Lake which is approximately 30 miles west of Kenora south of Highway 17. The property is easily accessible by road, that is, south on the Shoal Lake Road for one mile and then west on High Lake Road which is now the mine road for Eco Explorations Mine.

The holder of this property is Jack D. Martin of 682 Main Street, North Bay, Ontario P1B 5R7.

SHERRITT GORDON MINES LIMITED of P.O. Box 723, Dryden, Ontario P8N 2Z4 is submitting this survey as assessment work.

Approximately 35.4 miles of picketline (line interval 200 feet) and 7 miles of baseline were cut and picketed by Herb Bergeron of Red Lake, Ontario. The baselines have a bearing of 60° true. A horizontal loop electromagnetometer

survey was performed on this property and this survey is plotted on a plan scale of 1 inch to 200 feet. The results are presented on two sheets because of the size of the survey. There are two patented claims (23942 and 23943) included in this survey. They are not included in any way in this report.

The geophysical personnel were: D. Breeze; M. Glanfield; T. Trist; D. Carpenter and W. Gayner, all SHERRITT GORDON personnel.

Compilation and plotting were completed in our Dryden Office.

II GEOLOGY

The geologic setting consists principally of basic lavas which have been metamorphosed that have been intruded by a quartz-feldspar porphyry. The lavas are predominantly massive but in places there is some shearing. Pillows have been noted on the property. The contacts are sharp between the porphyry and the greenstones. Shearing has been noted in the porphyry as well.

In 1961, Selco Exploration Company optioned a group of 23 claims which in part corresponds with these claims. Four encouraging surface showings of gold were found but drilling produced very low results. A geological and a magnetometer survey were performed on these claims as well. Rusty zones were encountered but assay results come up poor. There is mineralization (principally pyrite, chalcopyrite and pyrrhotite) at volcanic-porphyry contacts but gold content was reported to be low.

Copper was noted in very minor concentrations along with molybdenite throughout the quartz porphyry along the north shore of High Lake. A more concentrated zone of copper was revealed on this property. The showing consists of very thin massive veins of pyrite and pyrrhotite occurring as fracture-fillers in the porphyry. Copper, occurring as chalcopyrite and bornite are associated with these veins. The dimensions of the vein have been reported to be 6 feet wide and 300 feet long. No drilling has been performed. Selco dropped the option in 1961.

Jack Martin staked the claims in October 1978 and an agreement was signed with SHERRITT GORDON MINES LIMITED in October 1979. An EM survey has been performed and a magnetometer and geological survey will be completed.

III ELECTROMAGNETOMETER SURVEY

The instrument used on this survey was an Apex Max-Min 2. The horizontal loop configuration was used with a coil separation of 400 feet. Frequencies read were 888 and 3555 Hz. Station interval was 100 feet and 1258 stations were established.

Submitted June 10, 1981

Peter Hannigan

Peter Hannigan
Exploration Geologist
SHERRITT GORDON MINES LIMITED
Dryden Operation

SHERRITT GORDON MINES LIMITED

Lynn Lake, Manitoba



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INTERPRETATIVE NOTE - MAX-MIN SURVEY

HIGH LAKE AREA
DISTRICT OF KENORA
PROJECT 1245
NTS 52E-11-NW M1975

Claims 489285-489303 incl.

P. A. Pawliw
Chief Geophysicist

June 18, 1981

A Max-Min II horizontal loop em survey was conducted over the property. Two frequencies were read - 888 Hz and 3555 Hz - with a coil separation of 400 feet. Stations were read every 100 feet with a line interval of 200 feet.

Essentially a single conducting horizon is recognized with possibly two other very short bodies. Overburden, where present, proved quite responsive. Furthermore, readings which represent essentially coupling errors are present throughout the grid area. These are characterized by minimal anomalies in the quadrature measurements and equal amplitude anomalies at both frequencies in the real component.

The dip indications are at best very questionable on this job, but appear to be to the south.

Claim 489300

On line 300E, 496N, a short 300-400 foot long conductor may be present though obscured by the overburden response. It could also just as easily be the effect of perhaps a somewhat sudden thickening of the edge of the overburden at the bottom of the lake. No estimate of conductivity-thickness or depth is really possible.

Claim 489292

A relatively weak 400-500 foot long conductor may be present on lines 24E, 26E and 28E approximately at about 15+50N. The depth is less than 60 feet and the estimated thickness-conductivity is about 2 mhos.

Claims 489294, 295, 288

A generally strong conductor is present on this horizon. A single line conductor on line 50E is separated from the 'main zone' by an approximate 2000 foot gap where readings were not obtained due to wet ground but is probably correlative.

Due to discrepancies between the plotting on lines 22E, 24E and 26E, there may be a 100 foot plotting error on some or all of these lines.

Furthermore, the apparent 100 foot south offset of the conductors on lines 7E and 18E may be either plotting errors or probably picket errors on the grid. This should be checked in the field and the two lines re-read if possible.

If the 'offsets' are in fact real, the anomalies should be drilled. Otherwise, the conductors at 5E, 16E and 52E, should all represent good drill targets. Otherwise, no specific recommendation for future work is ventured at this time.

P. A. Pawliw/jl

June 19, 1981





GEOPHYS
TE



52E11NE9047 2.3970 EWART

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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.

RECEIVED

JUN 26 1981

MINING LANDS SECTION

Type of Survey(s) ELECTROMAGNETOMETER

Township or Area EWART TOWNSHIP (M-1975)

Claim Holder(s) JACK D. MARTIN (C-26202)

Survey Company SHERRITT GORDON MINES LIMITED

Author of Report P.A. PAWLIW P. HANNIGAN

Address of Author LYNN LAKE DIV DRYDEN DIV

Covering Dates of Survey FEBRUARY 1981 - JUNE 1981
(linecutting to office)

Total Miles of Line Cut 35.4 MILES PICKETLINE
7 MILES BASELINE

MINING CLAIMS TRAVERSED
List numerically

- K 489285
- (prefix) (number)
- K 489286
- K 489287
- K 489288
- K 489289
- K 489290
- K 489291
- K 489292
- K 489293
- K 489294
- K 489295
- K 489296
- K 489297
- K 489298
- K 489299
- K 489300
- K 489301
- K 489302
- K 489303

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

- Geophysical
- Electromagnetic 40
- Magnetometer _____
- Radiometric _____
- Other _____
- Geological _____
- Geochemical _____

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: June 24, 1981 SIGNATURE: Peter Hannigan
Author of Report or Agent

Res. Geol. _____ Qualifications 2.3837

Previous Surveys

File No.	Type	Date	Claim Holder
			<u>L.O.</u>

TOTAL CLAIMS 19

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 1258 Number of Readings 2516
Station interval 100 ft Line spacing 200 ft
Profile scale 1" = 20%
Contour interval

MAGNETIC

Instrument
Accuracy - Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

ELECTROMAGNETIC

Instrument MAX-MIN 2
Coil configuration Horizontal Loop
Coil separation 400 ft
Accuracy 1%
Method: [] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency 888 & 3666 Hz (specify V.L.F. station)
Parameters measured In-Phase & Quadrature

GRAVITY

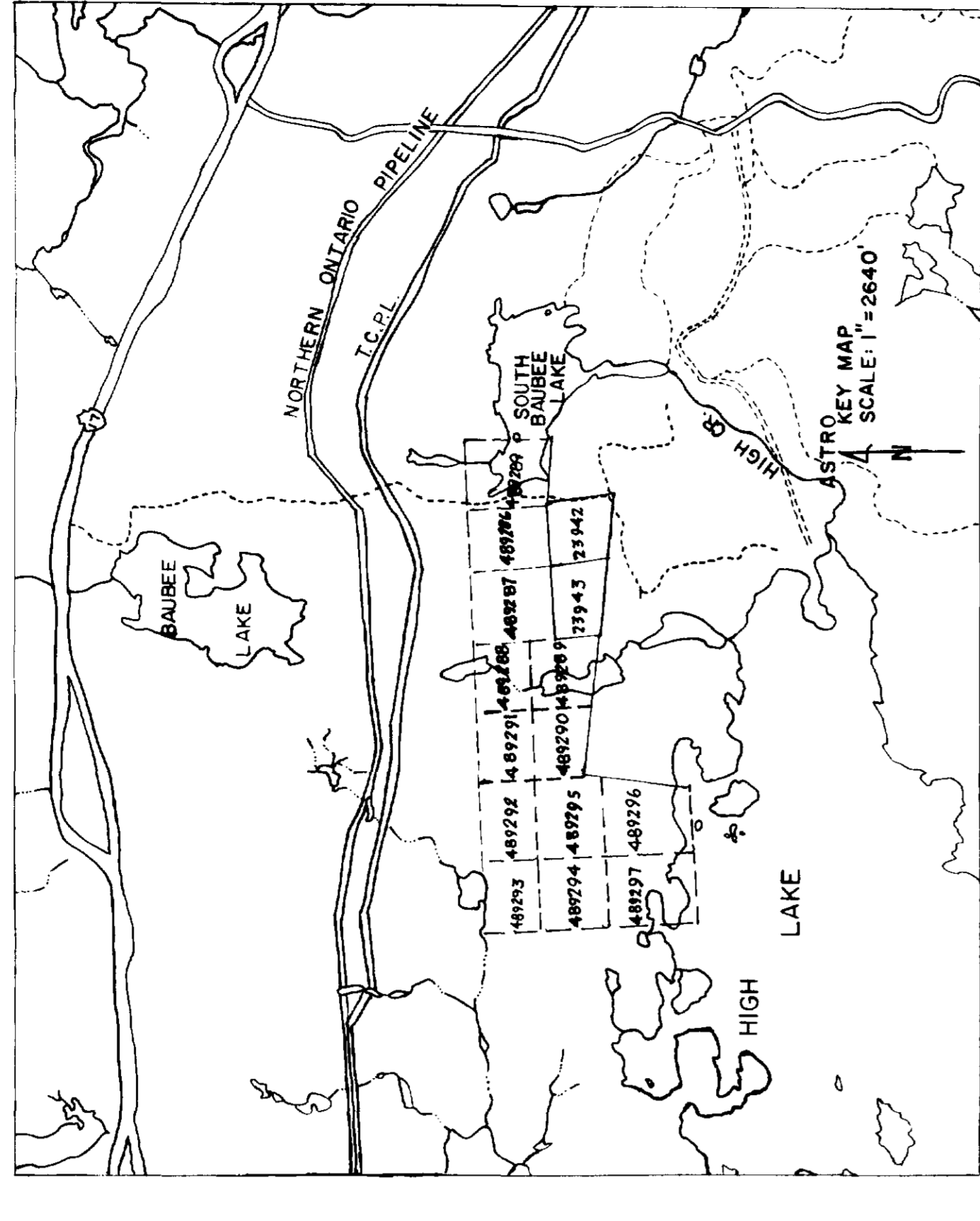
Instrument
Scale constant
Corrections made
Base station value and location
Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument
Method [] Time Domain [] Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode

20N 18N 16N 14N 12N 10N 8N 6N 4N 2N 0+00 2S 4S 6S 8S 10S 12S 14S 16S 18S 20S 22S

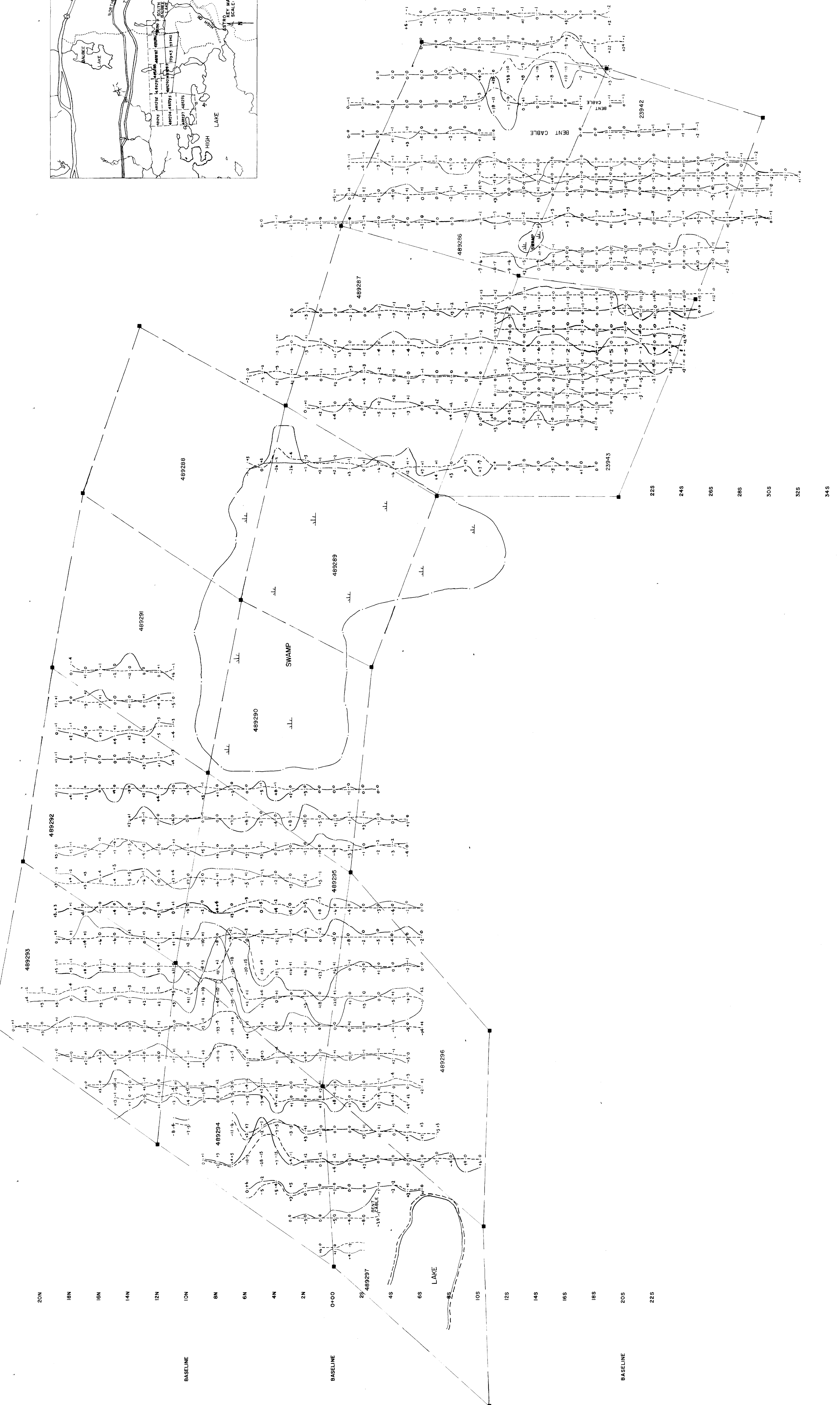
20E 22E 24E 26E 28E 30E 32E 34E 36E 38E 40E 42E 44E 46E 48E 50E 52E 54E 56E 58E 60E 62E 64E 66E 68E 70E 72E 74E 76E 78E 80E 82E 84E



LEGEND:
 - - - IN PHASE
 - - - OUT OF PHASE
 ■ CLAIM POST
 — CLAIM LINE
 — SHORELINE
 SWAMP

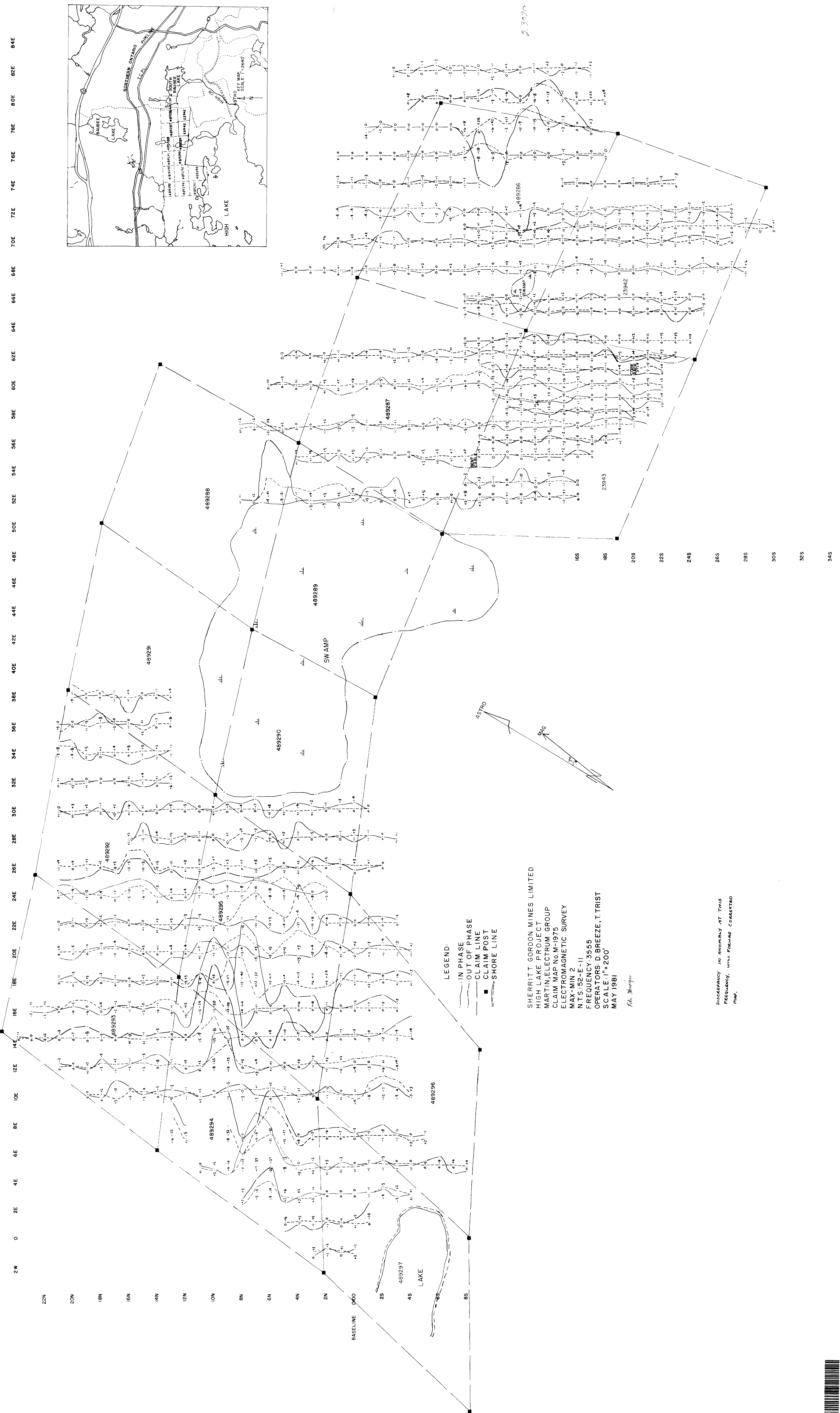
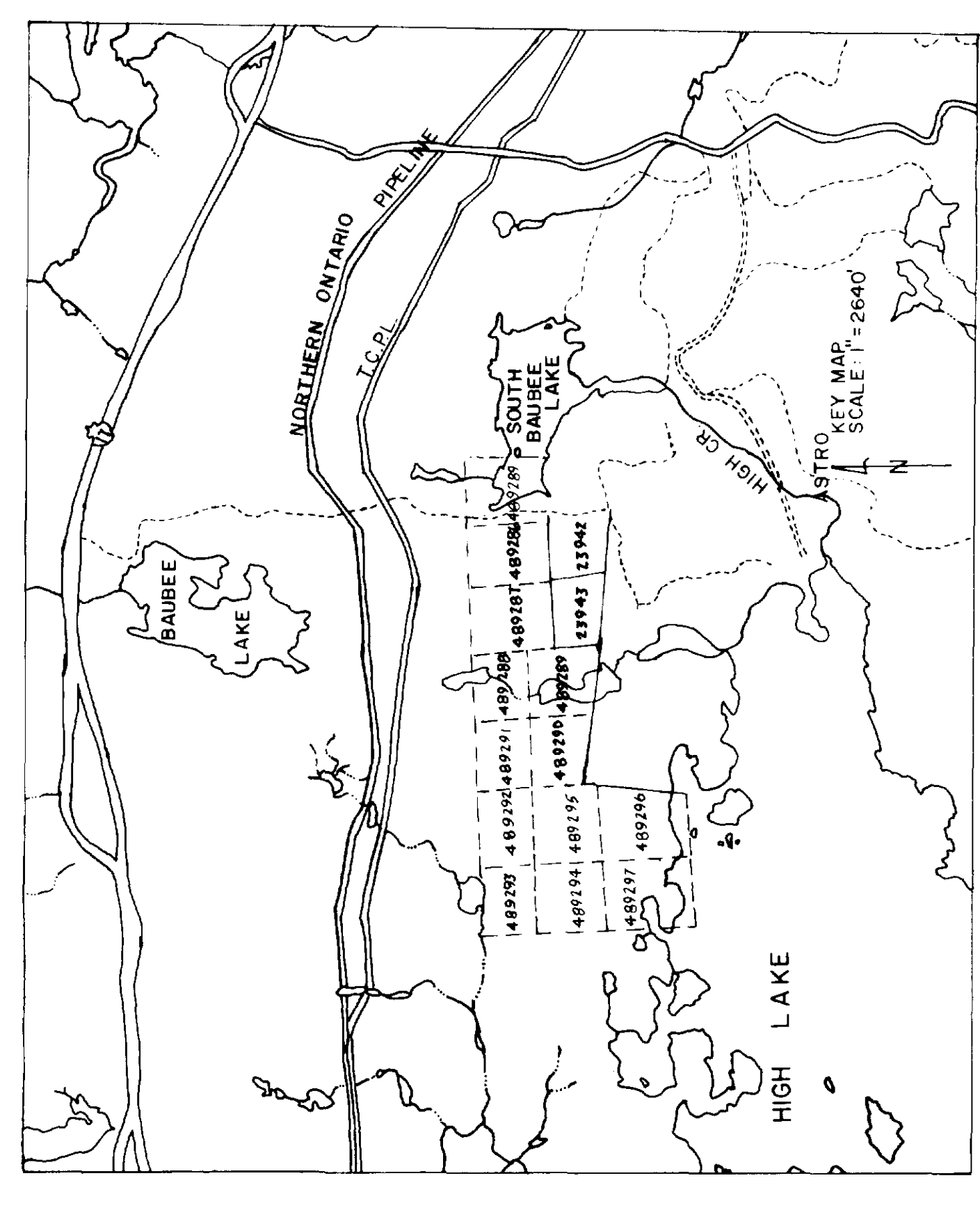
SHERRITT GORDON MINES LIMITED
 HIGH LAKE AREA
 GROUP - MARTIN
 ELECTROM
 MAX-MIN 2
 FREQUENCY 868
 OPERATORS D BREEZE, T TRIST
 SCALE 1" = 200'
 ELECTROMAGNETIC SURVEY
 N.T.S. 52-E-11
 CLAIM MAP No. M-1975

2370



2W 0 2E 4E 6E 8E 10E 12E 14E 16E 18E 20E 22E 24E 26E 28E 30E 32E 34E 36E 38E 40E 42E 44E 46E 48E 50E 52E 54E 56E 58E 60E 62E 64E 66E 68E 70E 72E 74E 76E 78E 80E 82E 84E

22N
20N
18N
16N
14N
12N
10N
8N
6N
4N
2N



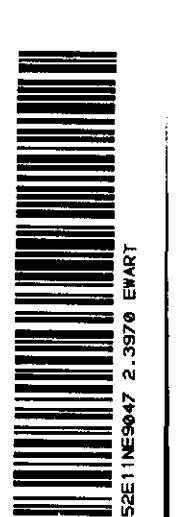
LEGEND:
 IN PHASE
 OUT OF PHASE
 CLAIM LINE
 CLAIM POST
 SHORE LINE

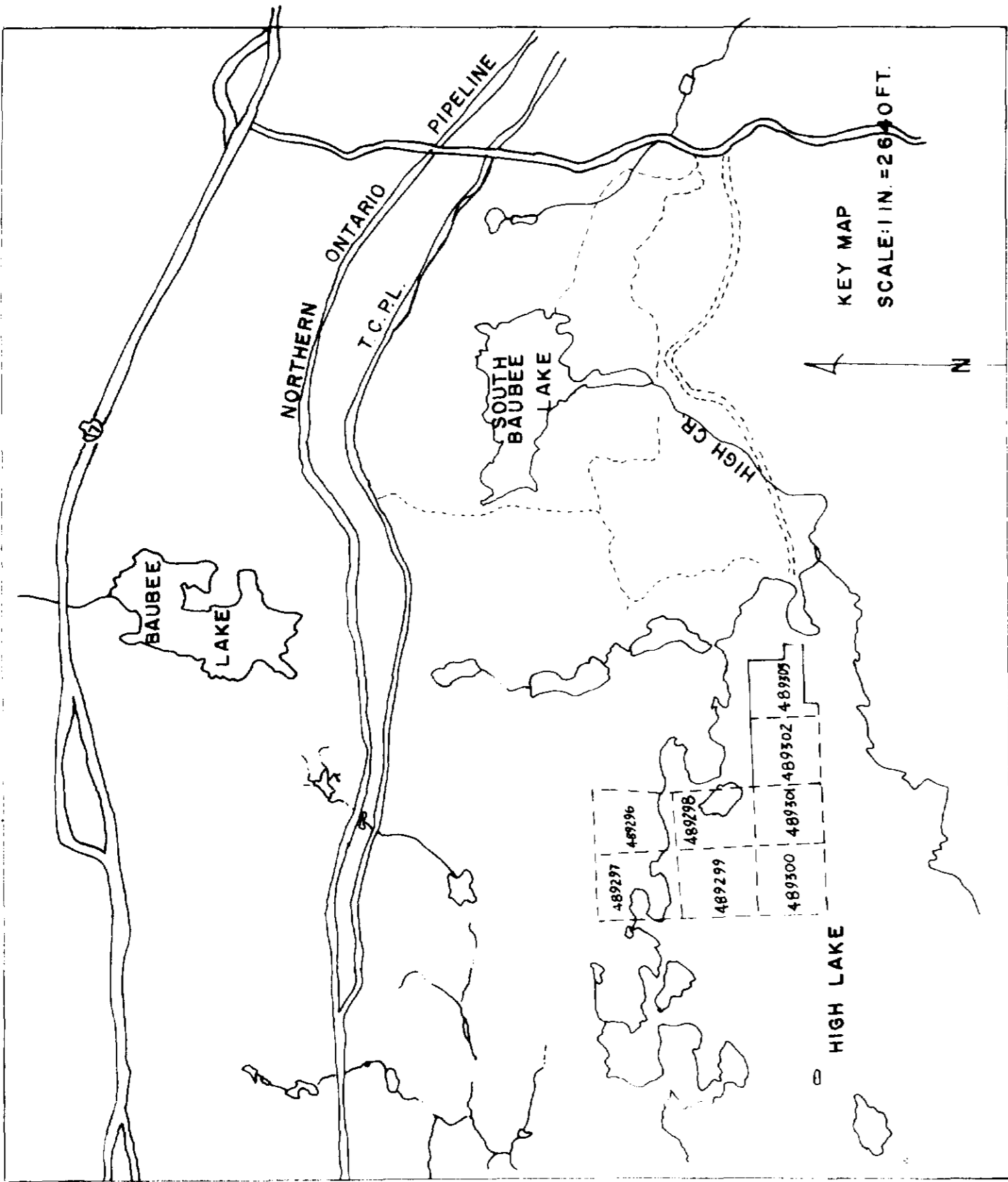
SHERRITT GORDON MINES LIMITED
 HIGH LAKE PROJECT
 MARTIN ELECTROM GROUP
 CLAIM MAP No M-1975
 ELECTROMAGNETIC SURVEY
 MAX-MIN 2
 N.T.S.: 52-E-11
 OPERATORS: D. BREEZE, T. TRIST
 SCALE: 1"=200'
 MAY 1981

File Manager

DISCREPANCY IN ANOMALY AT THIS
 FREQUENCY, WILL BE CORRECTED
 N.M.P.

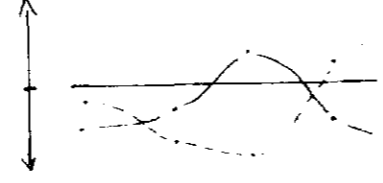
23970





LEGEND:

- - - IN PHASE
- - - OUT OF PHASE
- - - CLAIM LINE
- CLAIM POST
- SHORE LINE



SHERRITT GORDON MINES LIMITED

HIGH LAKE PROJECT

MARTIN OPTION

PROJECT No 1245

CLAIM MAP No. M-1975

ELECTROMAGNETIC SURVEY

MAX-MIN 2

NTS: 52-E-11

VERTICAL SCALE: 1 IN. = 20%

PLAN SCALE: 1 IN. = 200 FT.

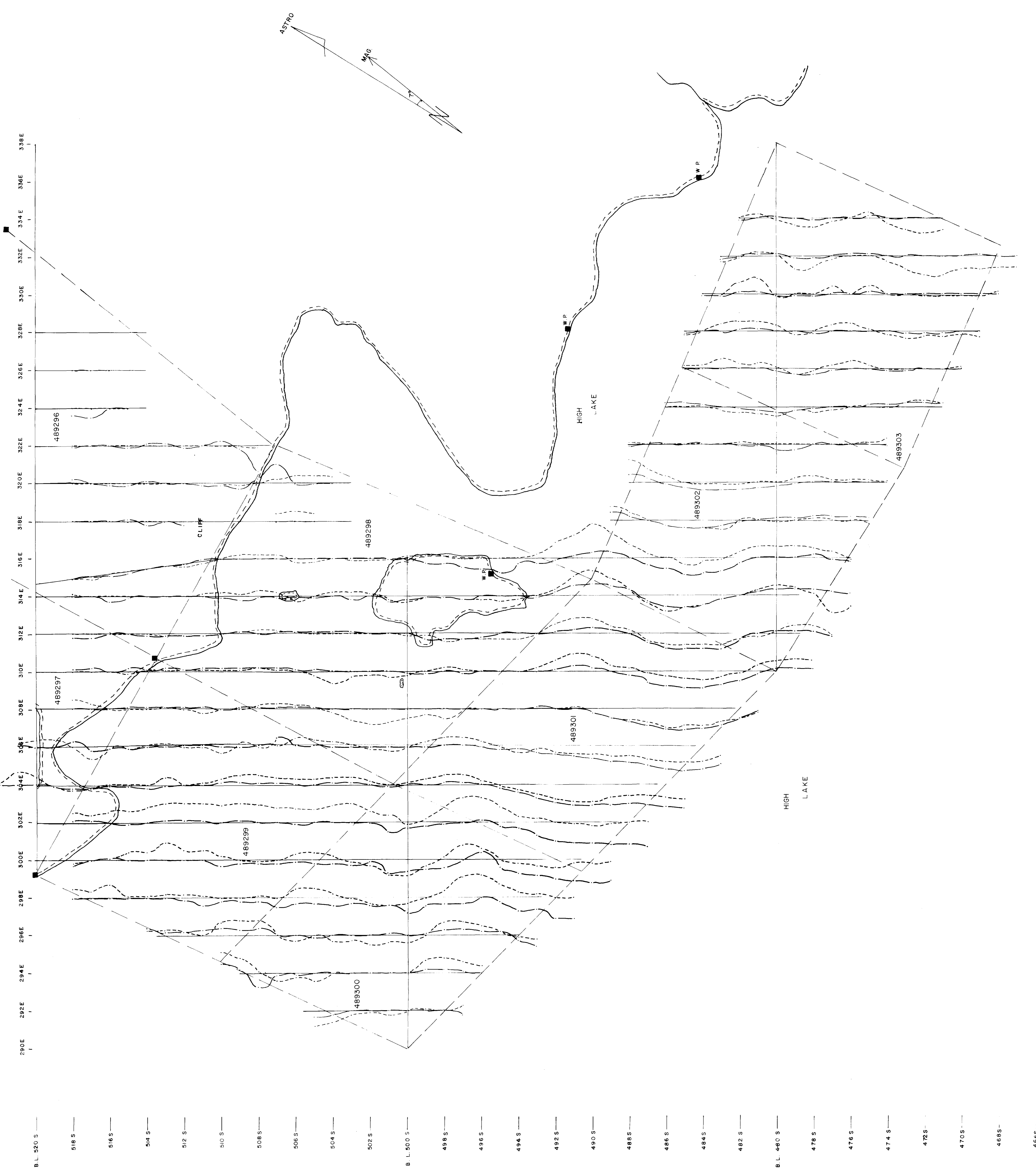
COIL SEPARATION: 400 FT.

FREQUENCY: 888

OPERATORS: D. BREEZE, M. GLANFIELD, D. CARPENTER

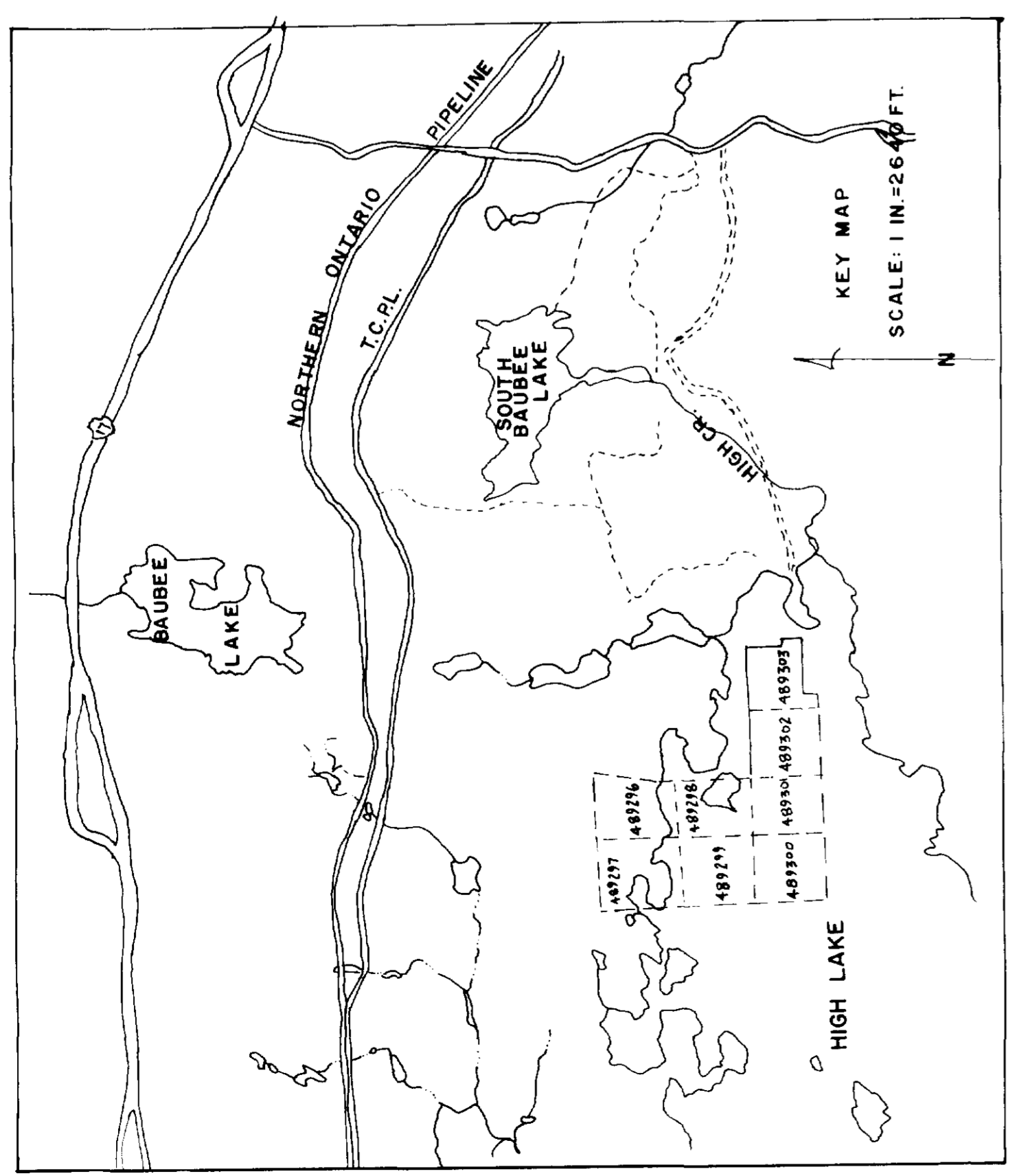
FEBRUARY 1981

Peter Hanger



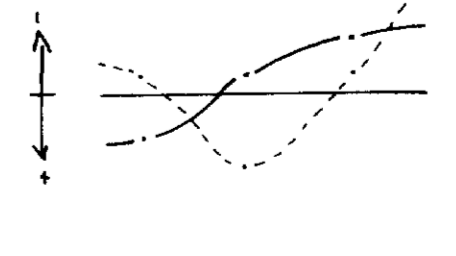


B.L. 520 S — 518 S — 516 S — 514 S — 512 S — 510 S — 508 S — 506 S — 504 S — 502 S —
 B.L. 500 S — 498 S — 496 S — 494 S — 492 S — 490 S — 488 S — 486 S — 484 S — 482 S —
 B.L. 480 S — 478 S — 476 S — 474 S — 472 S — 470 S — 468 S — 466 S —



- LEGEND:
- - - IN PHASE
 - - - OUT OF PHASE
 - - - CLAIM LINE
 - CLAIM POST
 - - - SHORE LINE

SHERRITT GORDON MINES LIMITED
 HIGH LAKE PROJECT
 MARTIN OPTION
 PROJECT No. 1245
 CLAIM MAP No. M-1975
 ELECTROMAGNETIC SURVEY
 MAX - MIN 2
 N.T.S. 52"-E-II
 VERTICAL SCALE: 1 IN. = 20 FT.
 PLAN SCALE: 1 IN. = 200 FT.
 COIL SEPARATION: 400 FT.
 FREQUENCY: 3555
 OPERATORS: D. BREEZE, M. GLANFIELD, D. CARPENTER
 FEBRUARY 1981



R. J. Hancock

2.2970

