# GEOLOGICAL REPORT

## Calm Lake Project

## NTS 52-C-16



Phantom Exploration Services Ltd.

September, 1989

Ian Spence

## INTRODUCTION

Gitchee-Gumee Gold of Thunder Bay, Ontario conducted a geological survey on their Calm Lake Property during the summer of 1989. The objective of this survey was geologically map and sample and old gold showing last worked in 1912.

## LOCATION, ACCESS AND GRIDDING

The property is located approximately 40 kilometres west of Atikokan, Ontario in the Thunder Bay Mining Division. The property consists of two unpatented claims numbered TB 1009091 and TB 909843.

The claim group is easily accessed by travelling north on the all weather Flanders Road from Highway #11 for about 3 kilometres. From this point there is approximately a 400 meter walk to the west that will bring to the east boundary of the property.

The grid was established by Phantom Exploration Services Ltd. in conjunction with Gitchee-Gumee Gold personnel. Approximately 2.0 kilometres of line was cut, chained and picketed at 25 meter intervals. The baseline was orientated east-west while north-south wing lines were cut at 100 meter intervals along it.

## PERSONNEL

The geological mapping was carried out by D. Gliddon with the report written by I. Spence. of Phantom Exploration Services Ltd.

## GENERAL GEOLOGY

The claim group is located within the Wabigoon Subprovince near the boundary between the Wabigoon and the Quetico Subprovinces. The main part of Wabigoon Subprovince is comprised of a complex assemblage of mafic to felsic metavolcanics which are intercalated with sandstone and iron rich sediments. A major northeast trending lineament passes through the property and connects with the Seine River Fault.

## PROPERTY GEOLOGY

The property is underlain for the most part, by mafic volcanic flows and tuffs with thick interbedded felsic pyroclastic units. The pyroclastics are divided on the basis of fragment size; larger than 64 mm for a tuff breccia unit, 2-64 mm for a lapilli tuff and < 2mm for a tuff. The fragments are subrounded to angular

and typically intermediate to felsic in composition with the larger felsic fragments being commonly vesicular. The groundmass of these fragments is generally fine grained and mafic.

## MINERALIZATION

Sulphide mineralization (pyrite, chalcopyrite) is found in northwest/southeast trending shear zones which splay off of the major northeast striking lineament. Grab samples from two parallel quartz filled shear zones have returned up to 2.7 oz/ton and 0.5 oz/ton. Disseminated pyrite mineralization has been observes within the mafic flows and tuffs.

## CONCLUSIONS AND RECOMMENDATIONS

1) Gold mineralization has been located on the property within quartz filled shear zones which may or may not be related to a major lineament which cuts through the property.

2) The majority of sampling has been done north of the lineament, however a small quartz vein on the south side of the lineament did return values of 0.1 oz/ton.

3) A total of four pits were located on these two veins however none of these pits matches the description of a 85 foot shaft that was described in a 1912 report of work on the property.

4) It is therefore recommended that a stripping program with firehoses be done on both sides of the major fault in the vicinity of the pits. This would establish if the gold bearing shears continue across the fault or are possibly related to a larger gold bearing structure such as the fault.

5) A small prospecting program is recommended along the strike length of the major fault in order to try and locate any further gold bearing shears.

Submitted by

Phantom Exploration Services Ltd.

IAN SPENCE

Geologist

## APPENDIX

Map 1. LOCATION MAP

Map 2. GEOLOGICAL MAP

# Geophysical Report

# Max Min II

# Survey

## Calm Lake Project

## NTS 52-C-16



Phantom Exploration Services Ltd.

July, 1989

R. D. Middaugh

## INTRODUCTION

Gitchee-Gumee Gold of Thunder Bay, Ontario contracted Phantom Exploration Services Ltd. also of Thunder Bay, Ontario to conduct a Max Min II survey on their Calm Lake Project During the winter of 1989.

## LOCATION, ACCESS AND GRIDING

The property is located approximately 40 kilometres west of Atikokan, Ontario. The area is protected by two unpatented claims numbered TB 909843 and TB 1009091 located in the Thunder Bay mining division.

Access to the general area via Highway #11 is excellent all year round. The property is reached by travelling north on the Flanders Road from Highway #11 for about 3 kilometres. From this point a brief one claim length hike west brings you to the east boundary of the property.

The grid was established by Phantom Exploration Services Ltd. in conjunction with Gitchee-Gumee Gold personnel. Approximately 4.0 kilometres of line was cut, chained and picketed at 25 meter intervals. The baseline was orientated east-west while north-south wing lines were cut at 100 meter intervals along it.

## PERSONNEL

The day to day work and the overall supervision of the geophysical program was carried out by R. D. Middaugh of Phantom Exploration Services Ltd.

## INSTRUMENTATION

A Max Min unit manufactured by Apex Parametrics Limited of UXbridge, Ontario was used for this survey. Both in and out of phase readings were taken at 25 meter intervals on the grid lines. The frequencies used were 1777Hz and 444Hz, while the coil separation was 100 meters.

## DISCUSSION OF RESULTS

The grid area is presented in plan form at a scale of 1:2000. with a vertical scale set at 1 cm = 10% for the EM profiles.

The survey does not identify any good conductors which strongly suggests that the original VLF anomalies were merely due to topographic features ie the east-west trending creek and swamp system located on the property.

## CONCLUSIONS AND RECOMMENDATIONS

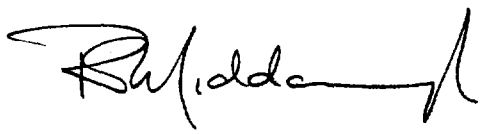
The survey area is underlain by a near vertical dipping northeast-southwest trending sequence of rocks. The lack of any Max Min anomalies suggest the supposed east-west shear zone coincident with the topo feature does not contain conductive mineralization.

Detailed mapping and prospecting should be carried out in order to better understand and evaluate the geophysical results and the economic potential of the area. Since the main interest on the property is gold mineralization, a geochemical survey of a suitable nature may better define gold-bearing horizons not necessarily outlined by the geophysical methods used to date.

Subsequent to the above recommendations, a drill program should be considered to test any resulting target areas.

Submitted by

Phantom Exploration Services Ltd.



R. D. Middaugh

Geologist

Ontario

G

52C16SE0051 2.12774 HEPBURN

900

File 12774

**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(s) GEOLOGICAL

Township or Area HEPBURN LAKE AREA G-532

Claim Holder(s) R.D. MIDDAUGH

Survey Company GLIDDON GEOLOGICAL SERVICES

Author of Report DAVE GLIDDON IAN SPENCE

Address of Author 603-199 ACADEMY DR. THUNDER BAY

Covering Dates of Survey 06/05/89 - 25/05/89 (linecutting to office)

Total Miles of Line Cut 4.0 Km

**SPECIAL PROVISIONS CREDITS REQUESTED**

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

ENTER 20 days for each additional survey using same grid.

DAYS per claim.

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological 20

Geochemical

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

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

DATE: Sept. 27/89 SIGNATURE: _____ Author of Report or Agent

Res. Geol. ____ Qualifications ~~2.5~~ 2.5402

Previous Surveys

| File No. | Type | Date | Claim Holder |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**MINING CLAIMS TRAVERSED**
**List numerically**

| (prefix) | (number) |
|---|---|
| TB | 909893 |
| TB | 1009091 |

If space insufficient, attach list

TOTAL CLAIMS 2

OFFICE USE ONLY

837 (5/79)

## SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

## RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

## OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

## AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

# GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

## SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

## ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

# GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

## MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

## 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 _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

Ontario

Ministry of Natural Resources

File _____

# GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

2.12774

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(s) GEOPHYSICAL

Township or Area HEPBURN LAKE AREA (G-532)

Claim Holder(s) R.D. MIDDAUGH

Survey Company PHANTOM EXPLORATION SERVICES LTD

Author of Report R.D. MIDDAUGH

Address of Author 736 ALICE AVE RR#14 Thunder BAY

Covering Dates of Survey MARCH 16/89
(linecutting to office)

Total Miles of Line Cut 7.0 Km

**SPECIAL PROVISIONS CREDITS REQUESTED**

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

ENTER 20 days for each additional survey using same grid.

| | DAYS per claim |
|---|---|
| Geophysical | |
| --Electromagnetic | 20 |
| --Magnetometer | |
| --Radiometric | |
| --Other | |
| Geological | |
| Geochemical | |

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

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

DATE: Sept 15/89 SIGNATURE: R.D. Middaugh
Author of Report or Agent

Res. Geol. _____ Qualifications ~~2~~ 2.635

Previous Surveys

| File No. | Type | Date | Claim Holder |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**MINING CLAIMS TRAVERSED**
List numerically

| (prefix) | (number) |
|---|---|
| TB | 909873 |
| TB | 1009091 |

If space insufficient, attach list

TOTAL CLAIMS 2

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

# GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

## SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

## ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

## GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 119 Number of Readings 166

Station interval 25 M Line spacing 100 M

Profile scale 1 cm = 5%

Contour interval N/A

MAGNETIC

Instrument

Accuracy – Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

Instrument PARAMETRICS MAX MIN II +

Coil configuration COPLANER

Coil separation 100 M

Accuracy ± 1%

Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line

Frequency 1777 Hz & 444 Hz (specify V.L.F. station)

Parameters measured IN PHASE & QUADRATURE COMPONENTS OF THE SECONDARY FIELD IN MAX MODE

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

Ministry of Northern Development and Mines
Ontario

# Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Lands - Sup X.

DOCUMENT No. W8904.323

Mining Act

Instructions: Please type or print.
If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): GEOLOGICAL

2.12774

Township or Area: HEPBURN LAKE (G-532)

Claim Holder(s): R.D. MIDDAUGH

Prospector's Licence No.: E-26855

Address: 736 ALICE AVE RR#14 THUNDER BAY ONT P7B 5E5

Survey Company: CLIDDON GEOLOGICAL SERVICES

Date of Survey (from & to): Day 06 Mo. 05 Yr. 89 / Day 06 Mo. 05 Yr. 89

Total Miles of line Cut: 4.0 km

Name and Address of Author (of Geo-Technical report): DALE CLIDDON 603-189 ACADEMY DR THUNDER BAY

## Credits Requested per Each Claim in Columns at right

| Special Provisions | | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | Geophysical | |
| | Electromagnetic | |
| | Magnetometer | |
| For each additional survey using the same grid: Enter 20 days (for each) | Radiometric | |
| | Other | |
| | Geological | 20 |
| | Geochemical | |

| Man Days | | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | Geophysical | |
| | Electromagnetic | |
| | Magnetometer | |
| | Radiometric | |
| | Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | |
| | Magnetometer | |
| | Radiometric | |

## Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| TB | 909843 | |
| | 1009091 | |

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| | | |

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES OFFICE
OCT 20 1989
RECEIVED

RECEIVED
AUG 14 1989
MINING LANDS SECTION

RECEIVED
1989 AUG 13 PM 3 03
THUNDER BAY
MINING DIVISION

Total number of mining claims covered by this report of work: 2

## Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits:

Note: Part of Expenditures may be apportioned at the claim holder's discretion. See note of days credits per claim selected in preceding section.

Date: Aug 2/89

Recorded Holder or Agent (Signature): R.D. Middaugh

## For Office Use Only

| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
|---|---|---|
| 40 | Aug 3/89 | |
| | Date Approved as Recorded: 30 Oct 89 RM | Branch Director: |

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: R.D. MIDDAUGH 736 ALICE AVE RR#14 THUNDER BAY ONT P7B 5E5

Date Certified: Aug 2/89

Certified by (Signature): R.D. Middaugh

Mining Lands. Sept.

Ministry of Northern Development and Mines

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W8904.324

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): GEOPHYSICAL (MAX-MIN)

Township or Area: HEPBURN LAKE (G-532)

Claim Holder(s): R.D. MIDDAUGH

Prospector's Licence No.: E-26955

Address: 736 ALICE AVE RR#4 THUNDER BAY ONT P7B 5E5

Survey Company: PHANTOM EXPLORATION SERVICES LTD

Date of Survey (from & to): 66 03 89 | 66 03 89

Total Miles of line Cut: ~4.0 km

Name and Address of Author (of Geo Technical report): RD MIDDAUGH 736 ALICE AVE RR#4 THUNDER BAY ONT P7B 5E5

Credits Requested per Each Claim in Columns at right

| Type of Survey | Days per Claim |
|---|---|
| Geophysical - Electromagnetic | 20 |
| Geophysical - Magnetometer | |
| Geophysical - Radiometric | |
| Geophysical - Other | |
| Geological | |
| Geochemical | |

For first survey: Enter 40 days. (This includes line cutting)

For each additional survey: using the same grid: Enter 20 days (for each)

| Expenditure Days | Days per Claim |
|---|---|
| Geophysical | |
| - Electromagnetic | |
| - Magnetometer | |
| - Radiometric | |
| - Other | |
| Geological | |
| Geochemical | |

Compute expenditure side and enter total(s) here

| Assessment Credits | Days per Claim |
|---|---|
| Geophysical | |
| - Electromagnetic | |
| - Magnetometer | |
| - Radiometric | |

Note: Geochemical credits do not apply for Magnetometer Surveys

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's discretion. Write in days credits per claim selected.

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| TB | 909843 | |
| | 1009091 | |

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| | | |

RECEIVED
AUG 14 1989
MINING LANDS SECTION

RECEIVED
'89 AUG 3 PM 3 03
THUNDER BAY
MINING DIVISION

Total number of mining claims covered by this report of work: 2

For Office Use Only

Total Days Cr. Recorded: 40

Date Recorded: Aug 3/89

Date Approved as Recorded: 20 Oct 89

Mining Recorder: R.M.

Date: Aug 2/89

Signature of Author of Report of Work: R. Middaugh

I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying: RD MIDDAUGH 736 ALICE AVE RR#4 THUNDER BAY ONT P7B 5E5

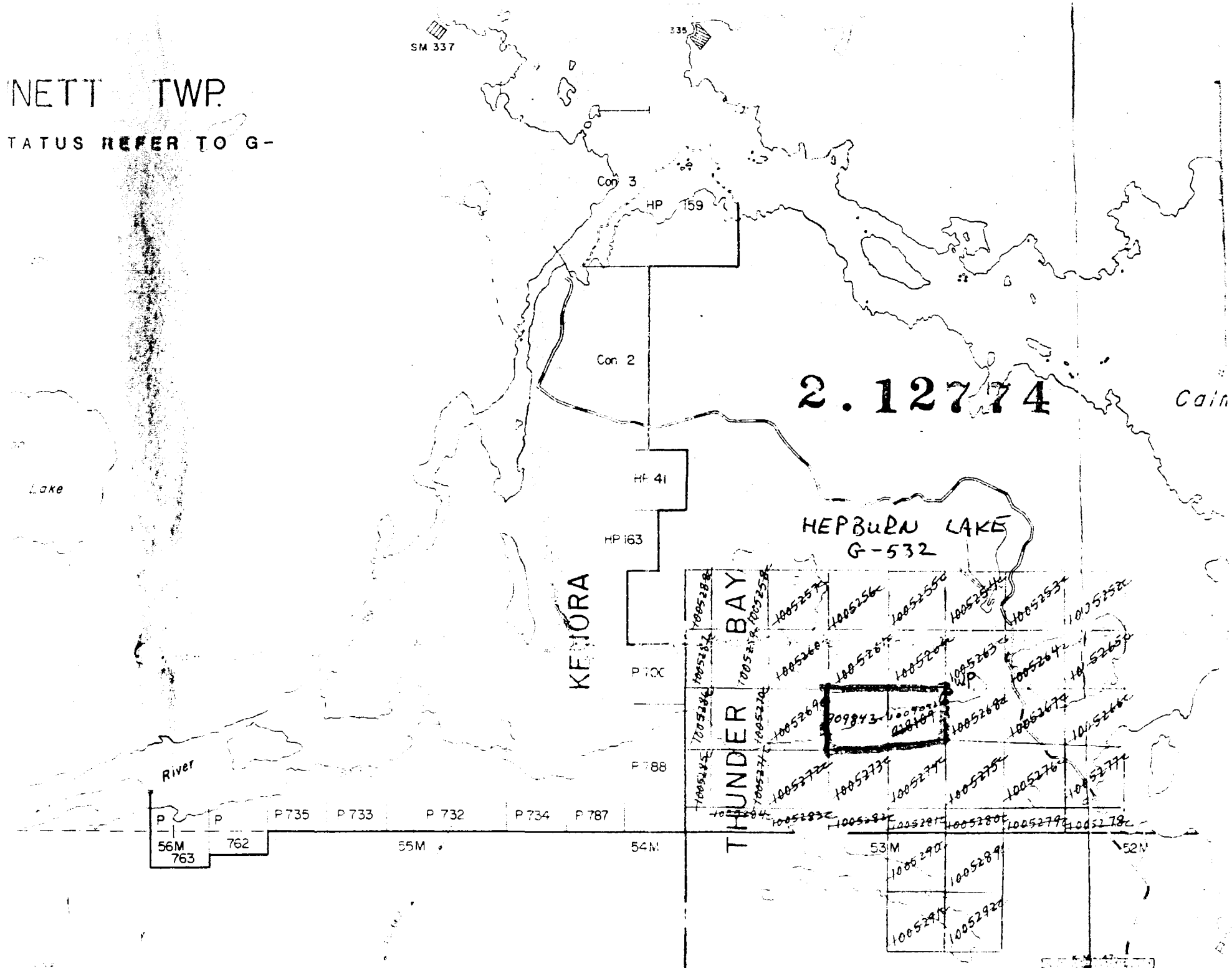
Date Certified: Aug 2/89

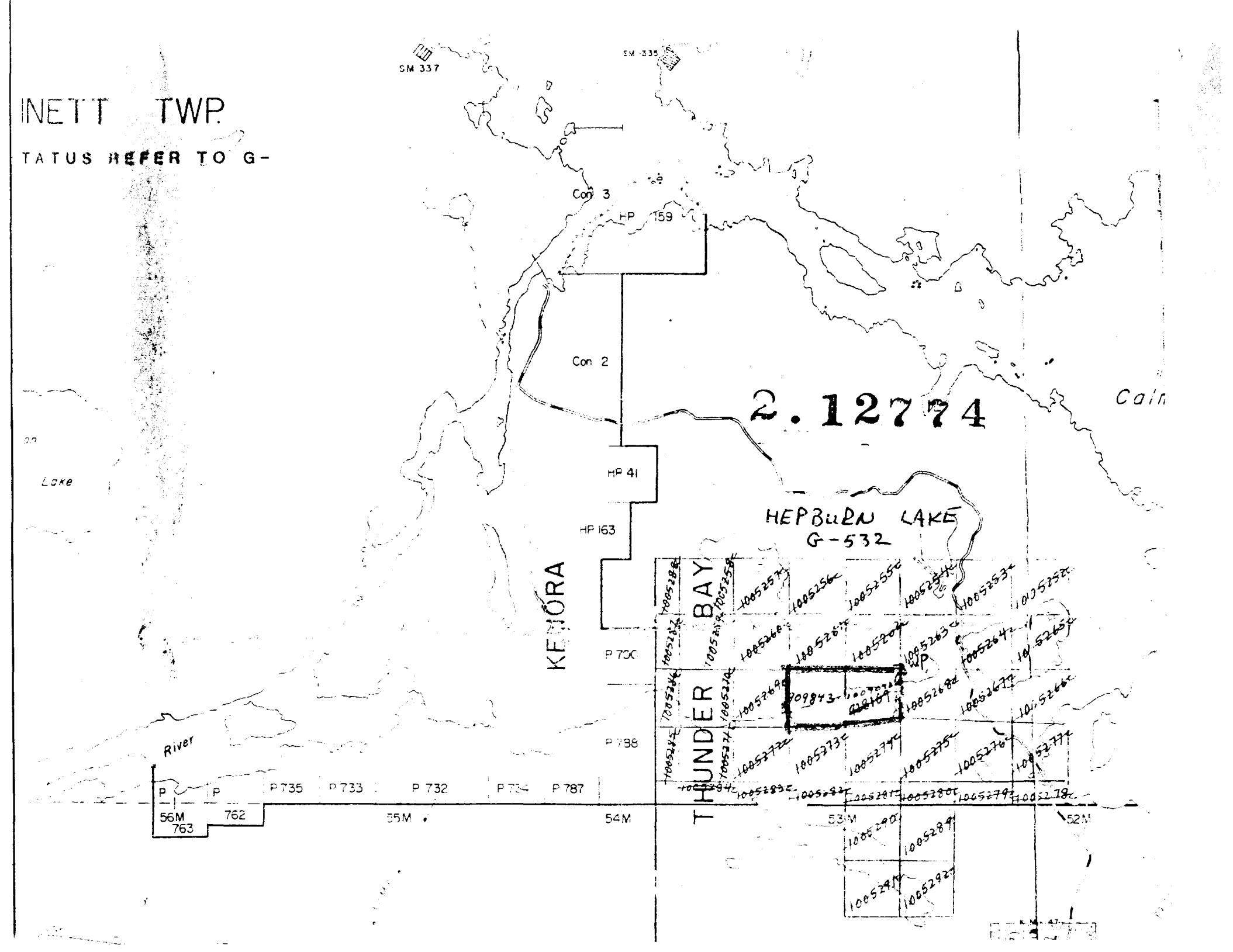
Certified by (Signature): R. Middaugh

1362 (85/12)

NETT TWP.

TATUS REFER TO G-




INETT TWP.
TATUS REFER TO G-
SM 337
SM 335
Con 3
HP 159
Con 2
2.12774
HP 41
HP 163
HEPBURN LAKE
G-532
KAMINORA
THUNDER BAY
P 700
P 788
P 735
P 733
P 732
P 734
P 787
56M
763
762
55M
54M
53M
52M
River
Lake

SANDBEACH LAKE G-556

MIRANDA LAKE G-543

FACTOR LAKE G-527

ASMUSSEN TWP.

TANNER TWP.

BENNETT TWP.

FOR STATUS REFER TO G-

DIVISION

MINING

DIVISION

MINING

KENORA

THUNDER BAY

Holmes Lake

Cantley River

Beynon Lake

Cantley Lake

Little Turtle River

Little Vce River

Ocetoil Lake

Hepburn Lake

McPherson Lake

Bennett L.

Calm River

Miranda River

Redpine Pt

Lot9 Lot8 Lot7 Lot6 Lot5 Lot4 Lot3 Lot2

58M 57M 56M 55M 54M 53M 52M 51M 50M 49M 48M

Con 6 Con 5 Con 4 Con 3 Con 2

HP 39 HP 41 HP 163

P 700 P 758

P 718 P 723 P 724 P 735 P 733 P 732 P 734 P 787

SM 337 SM 338 SM 339 SM 340 SM 341 SM 342 SM 343 SM 344 SM 345 SM 346 SM 347 SM 348 SM 349 SM 350 SM 351 SM 352 SM 353 SM 354 SM 355 SM 356 SM 357 SM 358 SM 359 SM 360 SM 361 SM 362 SM 363 SM 364 SM 365 SM 366 SM 367 SM 368 SM 369 SM 370 SM 371 SM 372 SM 373 SM 374 SM 375 SM 376 SM 377 SM 378 SM 379 SM 380 SM 381 SM 382 SM 383 SM 384 SM 385 SM 386 SM 387 SM 388 SM 389 SM 390 SM 391 SM 392 SM 393 SM 394 SM 395 SM 396 SM 397 SM 398 SM 399 SM 400 SM 401 SM 402 SM 403 SM 404 SM 405 SM 406 SM 407 SM 408 SM 409 SM 410 SM 411 SM 412 SM 413 SM 414 SM 415 SM 416 SM 417 SM 418 SM 419 SM 420 SM 421 SM 422 SM 423 SM 424 SM 425 SM 426 SM 427 SM 428 SM 429 SM 430 SM 431 SM 432 SM 433 SM 434 SM 435 SM 436 SM 437 SM 438 SM 439 SM 440 SM 441 SM 442 SM 443 SM 444 SM 445 SM 446 SM 447 SM 448 SM 449 SM 450 SM 451 SM 452 SM 453 SM 454 SM 455 SM 456 SM 457 SM 458 SM 459 SM 460 SM 461 SM 462 SM 463 SM 464 SM 465 SM 466 SM 467 SM 468 SM 469 SM 470 SM 471 SM 472 SM 473 SM 474 SM 475 SM 476 SM 477 SM 478 SM 479 SM 480 SM 481 SM 482 SM 483 SM 484 SM 485 SM 486 SM 487 SM 488 SM 489 SM 490 SM 491 SM 492 SM 493 SM 494 SM 495 SM 496 SM 497 SM 498 SM 499 SM 500 SM 501 SM 502 SM 503 SM 504 SM 505 SM 506 SM 507 SM 508 SM 509 SM 510 SM 511 SM 512 SM 513 SM 514 SM 515 SM 516 SM 517 SM 518 SM 519 SM 520 SM 521 SM 522 SM 523 SM 524 SM 525 SM 526 SM 527 SM 528 SM 529 SM 530 SM 531 SM 532 SM 533 SM 534 SM 535 SM 536 SM 537 SM 538 SM 539 SM 540 SM 541 SM 542 SM 543 SM 544 SM 545 SM 546 SM 547 SM 548 SM 549 SM 550 SM 551 SM 552 SM 553 SM 554 SM 555 SM 556 SM 557 SM 558 SM 559 SM 560 SM 561 SM 562 SM 563 SM 564 SM 565 SM 566 SM 567 SM 568 SM 569 SM 570 SM 571 SM 572 SM 573 SM 574 SM 575 SM 576 SM 577 SM 578 SM 579 SM 580 SM 581 SM 582 SM 583 SM 584 SM 585 SM 586 SM 587 SM 588 SM 589 SM 590 SM 591 SM 592 SM 593 SM 594 SM 595 SM 596 SM 597 SM 598 SM 599 SM 600 SM 601 SM 602 SM 603 SM 604 SM 605 SM 606 SM 607 SM 608 SM 609 SM 610 SM 611 SM 612 SM 613 SM 614 SM 615 SM 616 SM 617 SM 618 SM 619 SM 620 SM 621 SM 622 SM 623 SM 624 SM 625 SM 626 SM 627 SM 628 SM 629 SM 630 SM 631 SM 632 SM 633 SM 634 SM 635 SM 636 SM 637 SM 638 SM 639 SM 640 SM 641 SM 642 SM 643 SM 644 SM 645 SM 646 SM 647 SM 648 SM 649 SM 650 SM 651 SM 652 SM 653 SM 654 SM 655 SM 656 SM 657 SM 658 SM 659 SM 660 SM 661 SM 662 SM 663 SM 664 SM 665 SM 666 SM 667 SM 668 SM 669 SM 670 SM 671 SM 672 SM 673 SM 674 SM 675 SM 676 SM 677 SM 678 SM 679 SM 680 SM 681 SM 682 SM 683 SM 684 SM 685 SM 686 SM 687 SM 688 SM 689 SM 690 SM 691 SM 692 SM 693 SM 694 SM 695 SM 696 SM 697 SM 698 SM 699 SM 700 SM 701 SM 702 SM 703 SM 704 SM 705 SM 706 SM 707 SM 708 SM 709 SM 710 SM 711 SM 712 SM 713 SM 714 SM 715 SM 716 SM 717 SM 718 SM 719 SM 720 SM 721 SM 722 SM 723 SM 724 SM 725 SM 726 SM 727 SM 728 SM 729 SM 730 SM 731 SM 732 SM 733 SM 734 SM 735 SM 736 SM 737 SM 738 SM 739 SM 740 SM 741 SM 742 SM 743 SM 744 SM 745 SM 746 SM 747 SM 748 SM 749 SM 750 SM 751 SM 752 SM 753 SM 754 SM 755 SM 756 SM 757 SM 758 SM 759 SM 760 SM 761 SM 762 SM 763 SM 764 SM 765 SM 766 SM 767 SM 768 SM 769 SM 770 SM 771 SM 772 SM 773 SM 774 SM 775 SM 776 SM 777 SM 778 SM 779 SM 780 SM 781 SM 782 SM 783 SM 784 SM 785 SM 786 SM 787 SM 788 SM 789 SM 790 SM 791 SM 792 SM 793 SM 794 SM 795 SM 796 SM 797 SM 798 SM 799 SM 800 SM 801 SM 802 SM 803 SM 804 SM 805 SM 806 SM 807 SM 808 SM 809 SM 810 SM 811 SM 812 SM 813 SM 814 SM 815 SM 816 SM 817 SM 818 SM 819 SM 820 SM 821 SM 822 SM 823 SM 824 SM 825 SM 826 SM 827 SM 828 SM 829 SM 830 SM 831 SM 832 SM 833 SM 834 SM 835 SM 836 SM 837 SM 838 SM 839 SM 840 SM 841 SM 842 SM 843 SM 844 SM 845 SM 846 SM 847 SM 848 SM 849 SM 850 SM 851 SM 852 SM 853 SM 854 SM 855 SM 856 SM 857 SM 858 SM 859 SM 860 SM 861 SM 862 SM 863 SM 864 SM 865 SM 866 SM 867 SM 868 SM 869 SM 870 SM 871 SM 872 SM 873 SM 874 SM 875 SM 876 SM 877 SM 878 SM 879 SM 880 SM 881 SM 882 SM 883 SM 884 SM 885 SM 886 SM 887 SM 888 SM 889 SM 890 SM 891 SM 892 SM 893 SM 894 SM 895 SM 896 SM 897 SM 898 SM 899 SM 900 SM 901 SM 902 SM 903 SM 904 SM 905 SM 906 SM 907 SM 908 SM 909 SM 910 SM 911 SM 912 SM 913 SM 914 SM 915 SM 916 SM 917 SM 918 SM 919 SM 920 SM 921 SM 922 SM 923 SM 924 SM 925 SM 926 SM 927 SM 928 SM 929 SM 930 SM 931 SM 932 SM 933 SM 934 SM 935 SM 936 SM 937 SM 938 SM 939 SM 940 SM 941 SM 942 SM 943 SM 944 SM 945 SM 946 SM 947 SM 948 SM 949 SM 950 SM 951 SM 952 SM 953 SM 954 SM 955 SM 956 SM 957 SM 958 SM 959 SM 960 SM 961 SM 962 SM 963 SM 964 SM 965 SM 966 SM 967 SM 968 SM 969 SM 970 SM 971 SM 972 SM 973 SM 974 SM 975 SM 976 SM 977 SM 978 SM 979 SM 980 SM 981 SM 982 SM 983 SM 984 SM 985 SM 986 SM 987 SM 988 SM 989 SM 990 SM 991 SM 992 SM 993 SM 994 SM 995 SM 996 SM 997 SM 998 SM 999 SM 1000

SV-326 SV-335

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AREAS WITHDRAWN FROM DISPOSITION

SR = SURFACE RIGHTS M = MINING

Description Grant No. Date Disposition

PROPOSED FORESTRY ACTIVITIES

Fishing Rights in ... with water sites on Sturgeon Fly ... Lake to ... dist. of ... & ... LO 6626 File ...

LEGEND

DISPOSITION

TYPE OF DISPOSITION

SURFACE RIGHTS

MINING RIGHTS

LEASE OF LOCATED

ORDER IN COUNCIL

RESERVATIONS

MISCELLANEOUS

SAND & GRAVEL

NOTE: ...

SCALE 1 INCH = 40 CHAINS

AREA

HEPBURN LA...

M.N.R. ADMINISTRATIVE DISTRICT

ATIKOKAN

MINING DIVISION

THUNDER BAY/KEN...

LAND TITLES / REGISTRY DIVISION

RAINY RIVER

Ontario Ministry of Natural Resources ... Branch

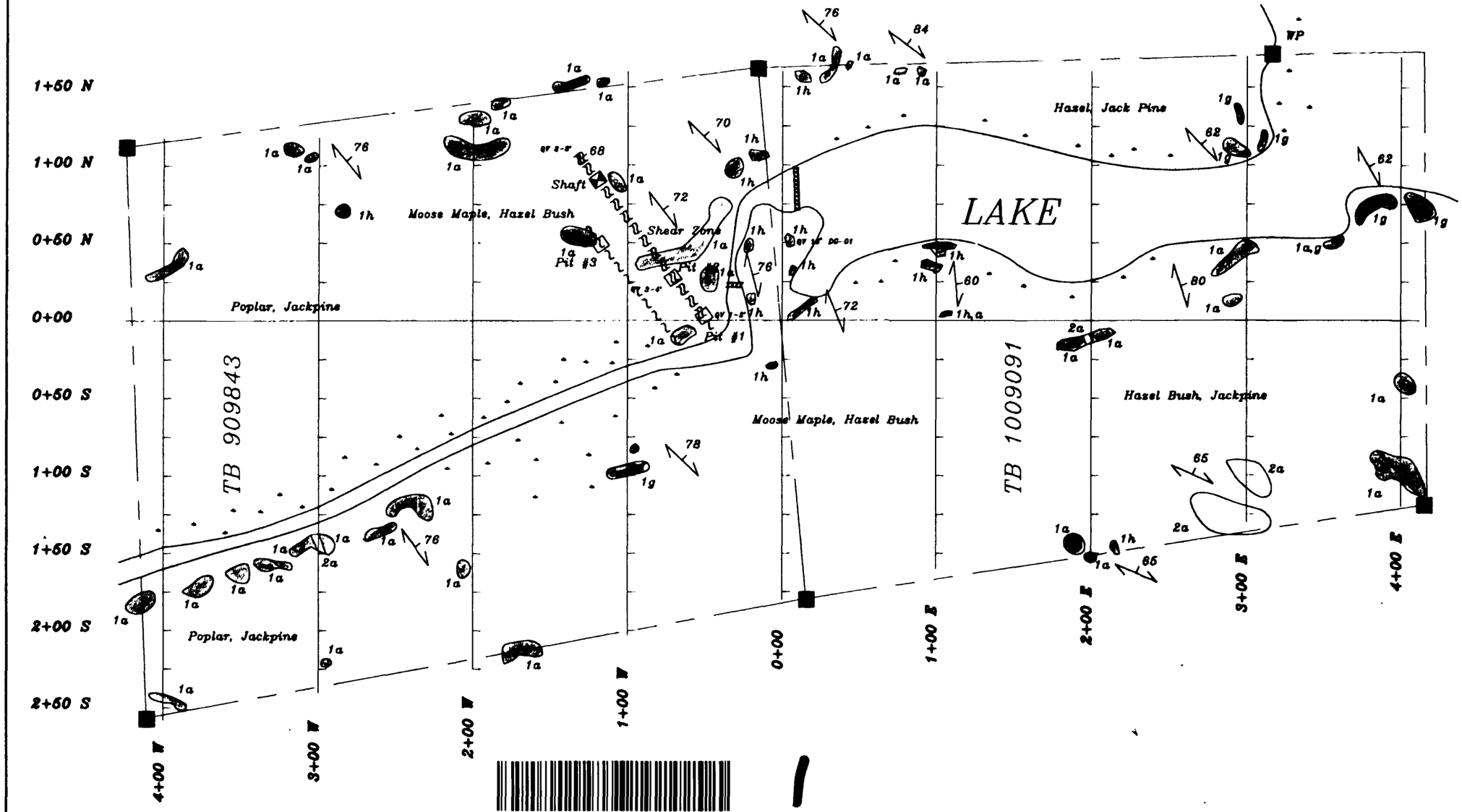
DECEMBER ...

G-5...

92°45' 48°52'30"

92°45'

200




52C16SE0051 2.12774 HEPBURN

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2.12774

LEGEND

GEOLOGICAL

1a Mafic flows
1g Mafic lapilli tuff
1h Tuff Breccia
2a Felsic Flows

Outcrop Area
80 Cleavage
Shear Zone

TOPOGRAPHY

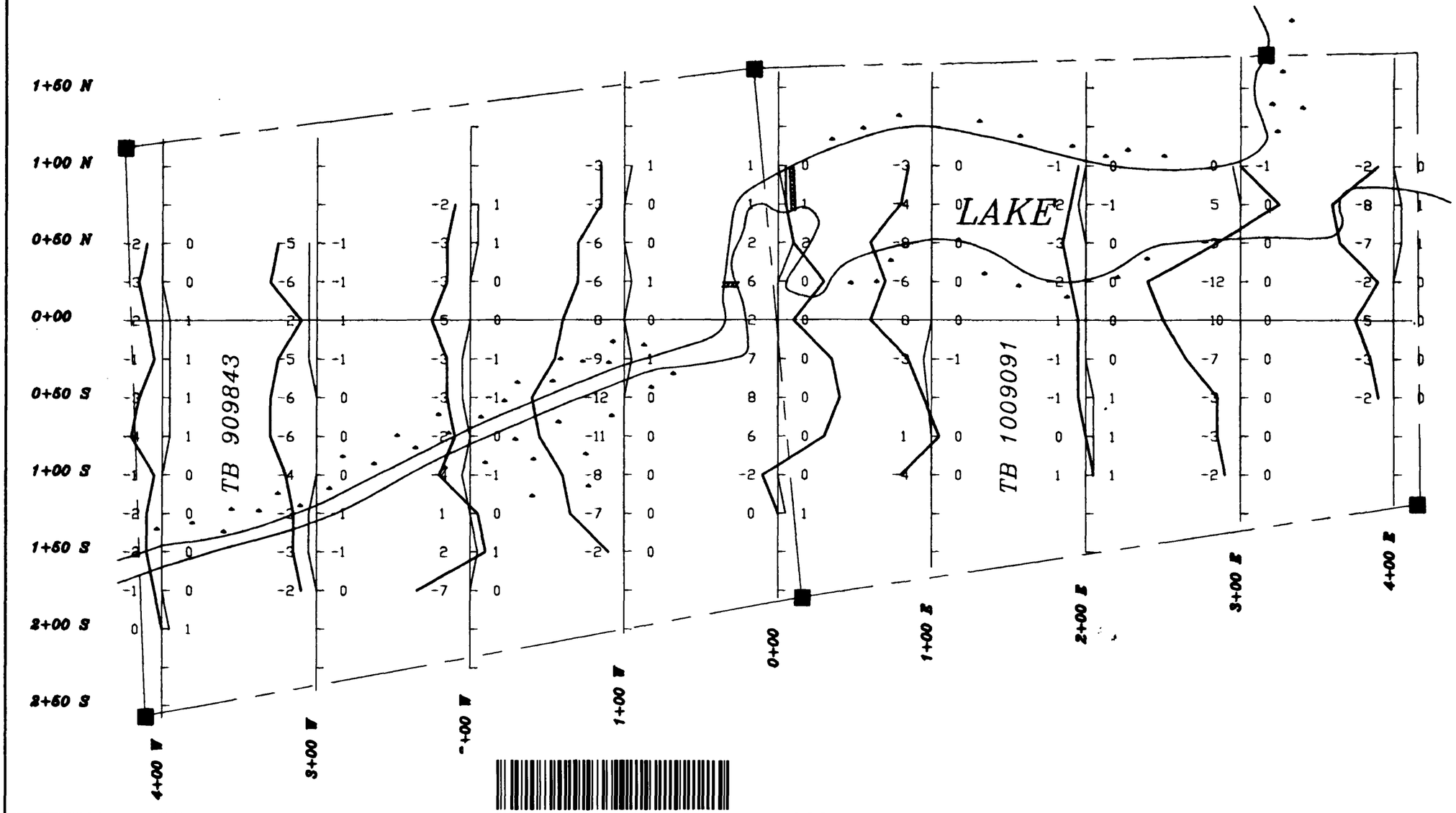
XXXX Beaver dam
Lake/River Shore
Claim Post

CITCHEE-CUMEE COLD

GEOLOGICAL SURVEY

Scale: 1:2500 | Date: Sept 1989

Phantom Exploration Services Ltd.




# 2.12774

## LEGEND

**GEOPHYSICAL**

INSTRUMENT: APEX MAXMIN II
COIL SEPARATION: 100 METERS
——— INPHASE READINGS
——— OUT OF PHASE READINGS
+VE READINGS RIGHT OF LINE
INPHASE READINGS LEFT OF LINE
PROFILE SCALE: 1CM = 5%
FREQUENCY 444 HZ

**TOPOGRAPHY**

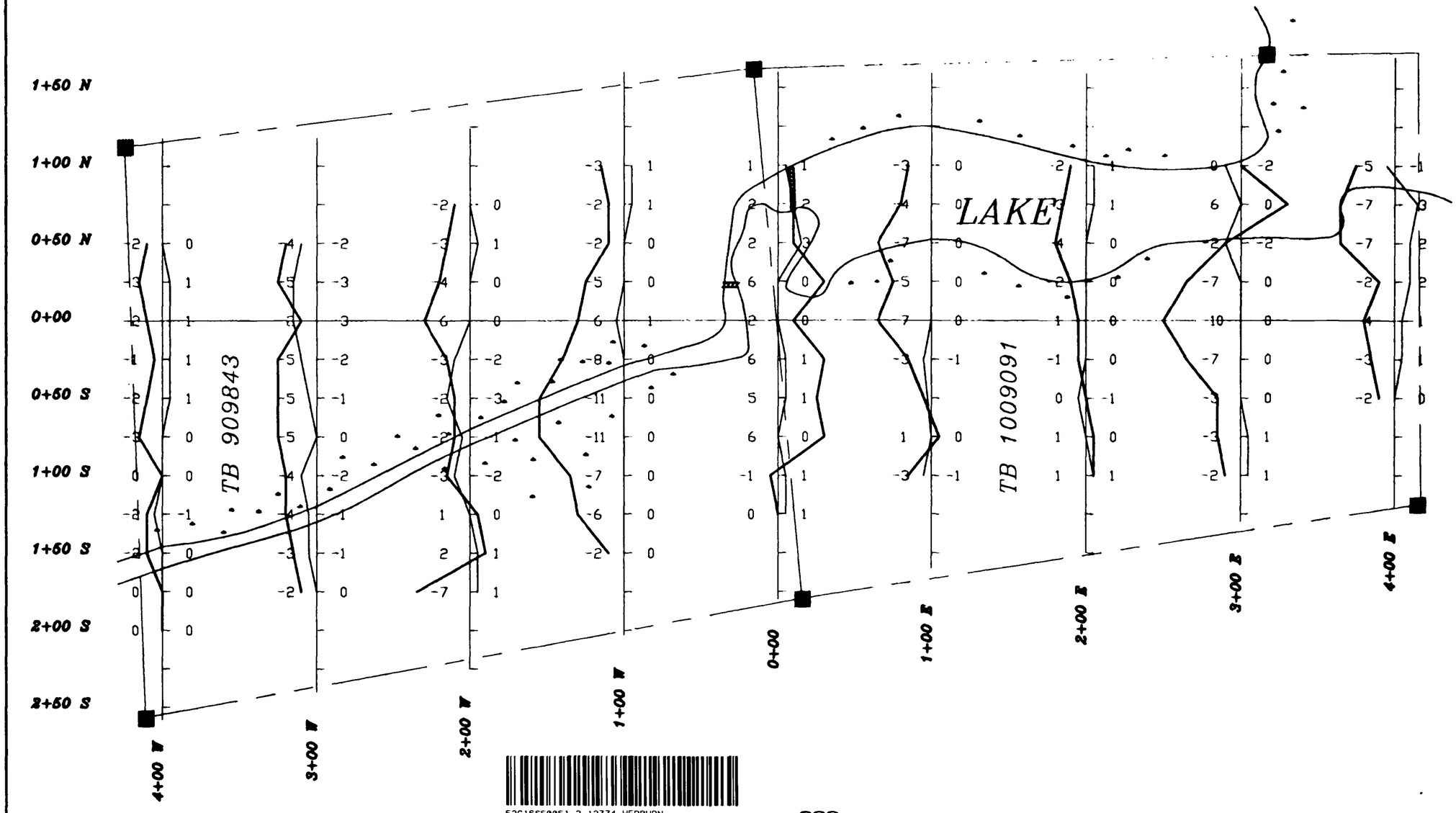
XXXX Beaver dam
Lake/River Shore
Claim Post

CITCHEE-CUMEE GOLD

HORIZONTAL LOOP SURVEY

Scale: 1:2500 | Date: Sept 1989

Phantom Exploration Services Ltd.






# 2.12774

## LEGEND

GEOPHYSICAL

INSTRUMENT: APEX MAXMIN II
COIL SEPARATION: 100 METERS
INPHASE READINGS
OUT OF PHASE READINGS
+VE READINGS RIGHT OF LINE
INPHASE READINGS LEFT OF LINE
PROFILE SCALE: 1CM = 5%
FREQUENCY 1777 HZ

TOPOGRAPHY

XXXX Beaver dam
Lake/River Shore
Claim Post

GITCHEE-CUMEE GOLD

HORIZONTAL LOOP SURVEY

Scale: 1:2500 | Date: Sept 1989

Phantom Exploration Services Ltd.