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REPORT ON THE MINING PROPI



CAMPBELL - KING -- Fiset CLAIM (

41P15NE8282 2.3116 POWELL

010C

IN THE TOWNSHIP OF POWELL IN THE DISTRICT OF TEMISKIMANG
LARDER LAKE MINING DIVISION

by Sylva Explorations Limited

Authour : Robert Sheedy

RECEIVED
DEC 7 1979
LANDS ADMINISTRATION
BRANCH

1979

- Contents - Abstract
- Past Work
- Magnetic Survey
- VLF_EM Survey
- Some Maxmin Profiles
- Conclusions and Recommendations.



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Abstract -

The mining claims surveyed are accessible from Highways 66 and 560 from Kirkland Lake then by a 4 wheel drive road exiting from the Extender Minerals Mill site (formerly the Ryan Lake Mine) which is located about five miles West of the town of Matachewan. For many years Zinc, copper and associated sulphide mineralization has been known to exist on the Welsh-Sauvé property which bounds the claims to the north. Similar mineralization occurs along the northern boundary of the CKF property.

A random bulldozing effort on the part of the principals involved led to the discovery of gold and the subsequent option to Copper Lake Exploration of the claim group in 1975.

The gold was found to occur in narrow argillicious intrusions into siltstone occurring with sulphides intrupted by a narrow (diabase) dike trending EW. Sufficient assays were obtained in the drilling program to show a minable width of .10 over 22 feet. No further drilling was carried out to ascertain strike or vertical depth. In the opinion of the authour the drill was set far too close to the vein to cut the full zone which is easily seen by the gossan which carried well in the vein but was washed away while coring since it was not cut at sufficient depth.

PAST WORK

During the time of the Copper Lake option an induced polarization survey was conducted by Geoterrex of Ottawa Ont. A spacing of N300 was utilized with a follow up of N100 for detail. A portable transmitter was used and a line by line presentation made. Several near surface conductors were outlined in part with resistivity. Diamond drilling was carried out based on the charginibilities and results of the resistivity.

The first hole was put through the showing on line 00 north of the baseline. The second was collared north west of this and did not cut any values having been collared prior to the availability of the Geoterrex plan. The third was collared on a zone far to the East of the property to test a zone of high charginibility but terminated in badly broken ground. The property was dropped at this point. Many zones were left untested. Coordinates of the drill collars are available in the assessment files in Toronto and Kirkland Lake. Results and further recomendations are likewise available.

MAGNETIC SURVEY

In carrying out the magnetic survey a McPhar M700 Magnetometer was utilized having a sensitivity of + or - 20 gammas. A Base station was set at 480 gammas at line 00+00. Line spacing was at 400' intervals except for Line 2E and 2W which were ran in their entirety because of their proximity to the gold showing. Since most of the country rock was sedimentary in the area very little information could be gleaned from the mag. The map is very difficult to contour because of the wide line spacing and highly variable readings if a contour interval of 500 gammas is used. Some higher readings which align North and South such as on Line 2E between 450 and 8S on Line 2E may represent a segment of a diabase dike but since the lines parallel such N and S features it would be difficult to definitely state such since short EW traverses would be required to define such a characteristic.

Prior to stripping in several areas of electromagnetic interest closely spaced traverses were made. One of these located north of the baseline on Line 20E and just East defined a shear or fractured zone with a sudden depression of 60 gammas occurring in an otherwise more magnetic signature. Subsequent stripping showed indeed very badly fractured rock into which sulphides had intruded. The zone did not extend to 2050'E as was shown in the trench.

At the historical showing the ultra afic intrusive which divides the two separate "ore" zones was successfully traced with close spaced traverses and although not presented since readings were taken every five feet agree with the resistivity component of the IP carried out by Geotrex. The dike was found to strike slightly North of East and the Dip seemed to be to the North although the vagrancies in the traverses suggest some curving of the zone. It is worthy of note that none of the VLF or MaxMin conductors were magnetic therefore probably consisting of sulphides lacking magnetite or pyrrhotite.

Any serious information to be found magnetically should be carried out on the property at much closer intervals than 400', but it is felt by the authour that a geological survey would be of much greater value.

VLF-EM SURVEY

At the same time as the Magnetic survey was being conducted a followup VLF survey was completed. As well as the dip angle a field strength survey was ran since the instrument used was a Crone Radem. A large number of crossovers were turned up some of which the validity as to their being bedrock conductors is questionable. The VLF is noted for responding to conductive overburden, waterfilled fractures or even where bedrock and overburden meet. Most of these were impossible to tell because of the snow cover. For this reason a great deal of attention was paid to the field strength component in the nature of crossovers no matter how weak (Fraser filtered). The accompanying map shows the raw field readings unfiltered but sufficiently delineates the zones discovered. Most of the near surface resistivity conductors outlined by Geotrex could be retraced with the exception of the Eastern anomaly in the central area south of the baseline. This particular zone was found to lie in a swamp and shows up perhaps on Line 16E at 250'S. The remaining crossovers tend to align in a North East direction as indeed do the stripped fracture zones.

On Line 8W and 4N a filtered crossover and a small rise in the field strength tended to co-incide with an alleged near surface IP conductor. Stripping was recommended in this area and a "new" zone of argillite in siltstone was uncovered with some zinc and copper mineralization being present. The zone appeared again very weakly on 14W then much more strongly until 4W where it seemed to end. Stripping of these zones did not reveal similar mineralization although no rock trenching has been carried out to this date however since this zone lies just south of the old Welsh-Sauvé workings the probability of similar mineralization being present is high. The mineral however, judging from MaxMin profiles seems to lie at depth rather than at the surface. This zone does not have a high conductivity and should best be explored by utilizing the chargeability component of the Geotrex survey.

The VLF did not react to the rock trench which was to contain the original gold showing probably because of the dike which breaks the continuity of the two sulphide deposits which are of a narrow width and disseminated. A increase in field strength was noted further to the south however.

During the course of the survey the field strength fell off rapidly in several areas. It is difficult to say if a totally different rock formation was encountered or if a vagrancy in the transmitting station or receiver was responsible. Subsequent testing with the MaxMin did not show up anything of note. These areas lie to the south of the property. Crossovers in this area proved to be conductive overburden. South of the baseline ranging from 4S and from 2E to 2W is a conductor which is strong being just south of a magnetic zone. This zone was of particular interest because of the proximity to the gold showing and the same mechanisms might be involved.

SOME MAXMIN PROFILES:

To discriminate against the VLF crossovers a MaxMin II was used to run a few short lines to evaluate the responses. The anomaly at 6N on L2W was found to be a bonafide conductor and it can be safely assumed that the aligning VLF crossovers are of a bedrock nature. This agrees with the characteristics of the IP survey. Massive segments, probably lenses, are present.

The southern portions of Lines 2NE and 4NE were also traversed with the MMII using a 200' coil spacing. The response was only one channel on Line 4E and two channel on 2E responding only to the quadrature component thereby proving in all likelihood that the zone is conductive overburden.

Whereas it is claimed that the N300 spacing and the mobile transmitter used by the IP survey gave sufficient penetration in the low swamy areas this is not the case. On Line 2E and at 4S a strong VLF crossover was similarly tested with the MaxMin again with a 200' coil spacing. The VLF showed a strong south Dip which agrees with the lower frequencies of the MMII. This coupled with the 4 channel response overrules the possibility of conductive overburden and gives a classic reverse sense response for a weakly massive/strongly disseminated sulphide anomaly. The zone responds over 4 channels from 355Hz to 444 Hz. It is also noticeable on 222Hz. but falls within the accuracy limits of the instrument.

The entire property was not surveyed with the MaxMin and nothing in the Eastern sector was covered.

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 463 220 Number of Readings 463
Station interval 100' Line spacing 200' + 400'
Profile scale 1000 gammas
Contour interval 1000 gammas

MAGNETIC

Instrument Mc PHAR M700
Accuracy - Scale constant + 20 GAMMAS
Diurnal correction method CHECK INTO BASESTATION
Base Station check-in interval (hours) 2 hrs.
Base Station location and value 00+00 - + 480 gammas
NO REGIONAL FIX

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 _____



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

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) ELECTRO MAGNETIC - VLF
Township or Area POWELL
Claim Holder(s) ROGER Fiset & Bros. - DON CAMPBELL, H. KING.
Survey Company SYLVA EXPLORATIONS LIMITED
Author of Report ROBERT SHEEDY
Address of Author BOX 135, MATACHEWAN
Covering Dates of Survey SEPT 1975 - SEPT 1979
(linecutting to office)
Total Miles of Line Cut 4.773 SURVEYED

MINING CLAIMS TRAVERSED
List numerically

L 372 909
(prefix) (number)
L 372 910
L 372 911

SPECIAL PROVISIONS
CREDITS REQUESTED

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

ENTER 20 days for each
additional survey using
same grid.

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

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

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

DATE: _____ SIGNATURE: _____
Author of Report or Agent

Res. Geol. L.P. Qualifications 1981

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 3

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations AS PRESENTED Number of Readings AS PRESENTED
Station interval 50' + 100' Line spacing 50' + 100'
Profile scale SEE MAP
Contour interval _____

MAGNETIC

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

ELECTROMAGNETIC

Instrument CROWE RADEM
Coil configuration VERTICAL
Coil separation READINGS TAKEN AT 100' + 50' INTERVALS
Accuracy ± 1° DIP ANGLE ± 2% FIELD STRENGTH
Method: Fixed transmitter Shoot back In line Parallel line
Frequency CUTLER MAINE
(specify V.L.F. station)
Parameters measured FIELD STRENGTH - DIP ANGLE

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 _____

Baden Twp. (M.205)

THE TOWNSHIP OF
OF
POWELL

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND Ⓟ
- CROWN LAND SALE C.S.
- LEASES Ⓛ
- 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.

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

Township closed to staking subject to Sec. 38 F of Mining Act.

L.O. 7601 Covers Flooding Rights In This Twp To Below Contour 870'.00 To H.E.P.C. File: 12290 Vol. 2.

L.O. III67 Shown thus: File: 90970.

Areas withdrawn from staking under Section 43 of the Mining Act. (R.S.O. 1970).

Order No.	File	Date	Disposition
Ⓜ	W.43/76	188552	S.R.O.

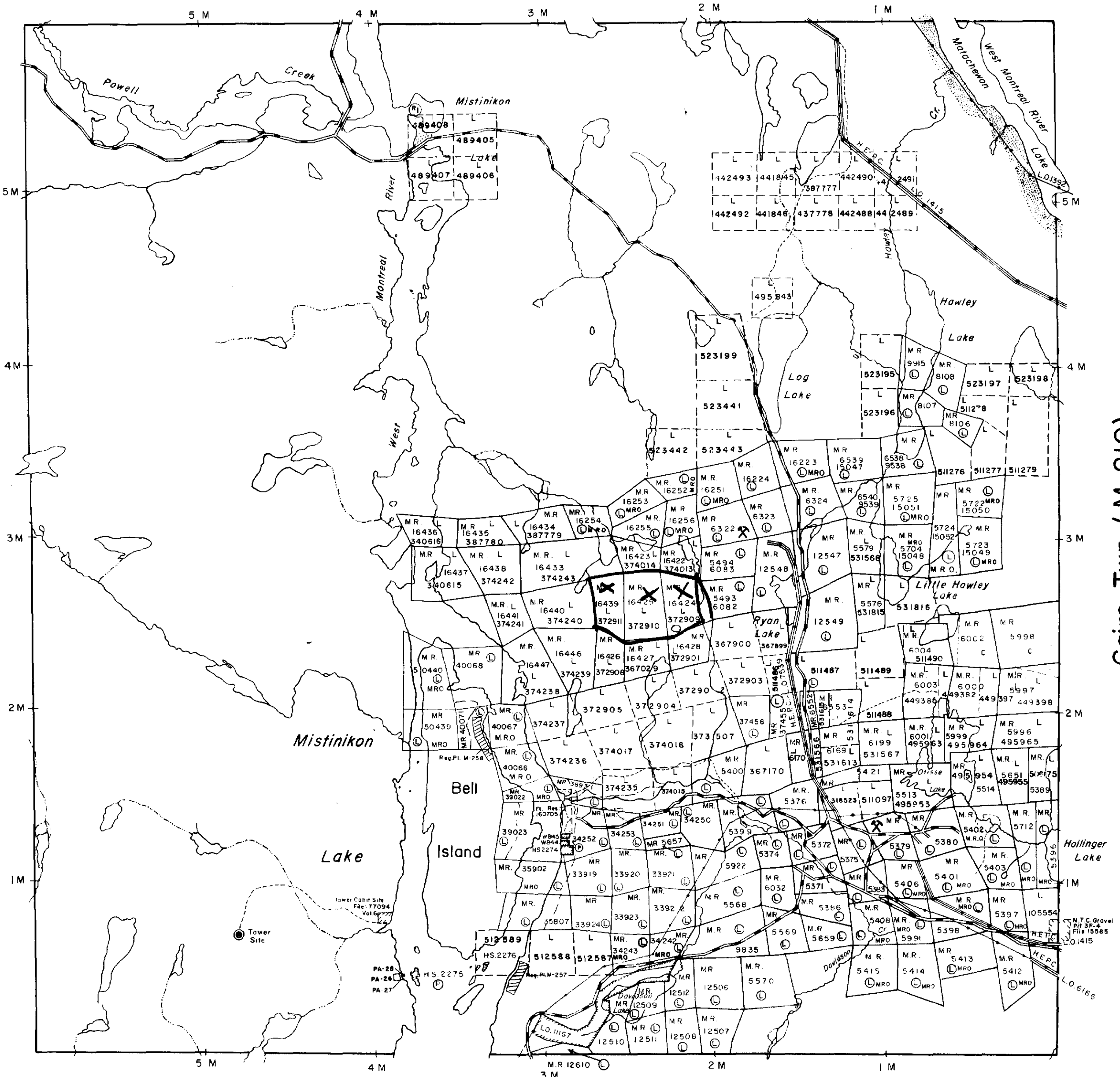
DATE OF ISSUE
NOV 27 1979
SURVEYS AND MAPPING
BRANCH

PLAN NO. **M.241**

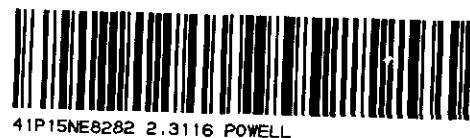
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Bannockburn Twp. (M.207)

Cairo Twp. (M. 210)



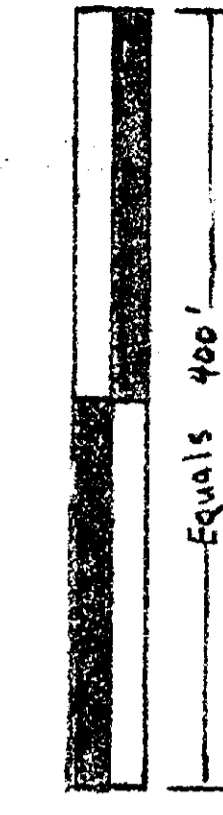
Yarrow Twp. (M.260)



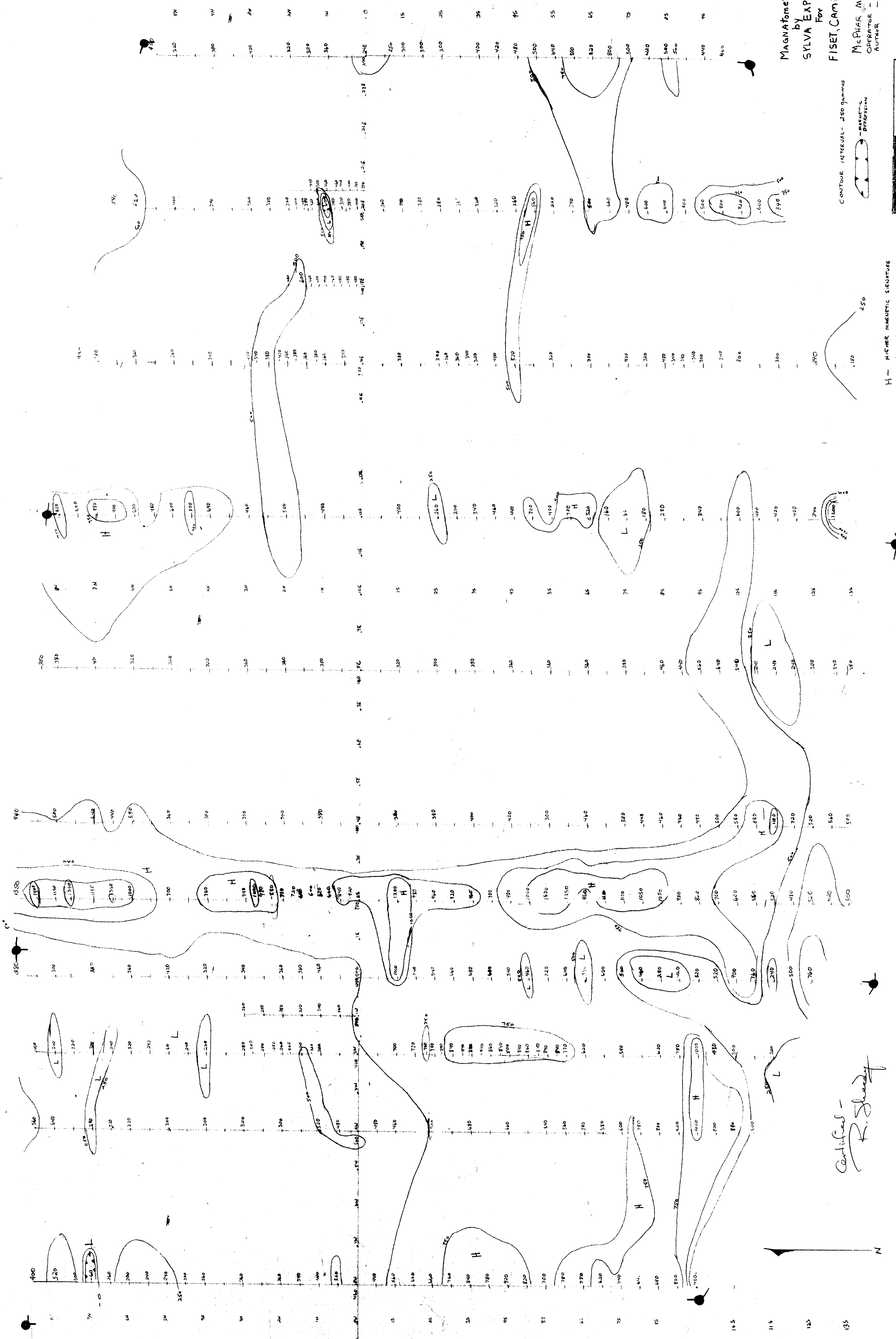
Magnetometer Survey
 by
 SYLVA EXPLORATION LIMITED
 For
 FISET, CAMPBELL, and KING

M. P. HARR M.T.O. MAGNETOMETER
 OPERATOR - G. TAMAN
 AUTHOR - R. SNEEDY

CONTOUR INTERVAL - 250 gamma



H - HIGHER MAGNETIC SCOUTAGE
 L - LOWER " " " " " "
 OPEN WITHIN A HIGH



Cartified -
 R. Sneed



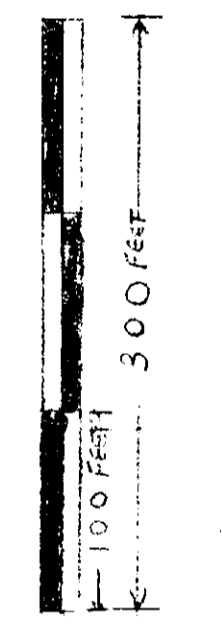
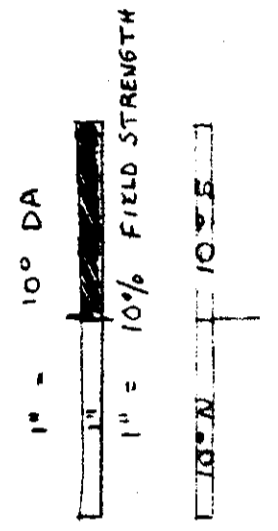
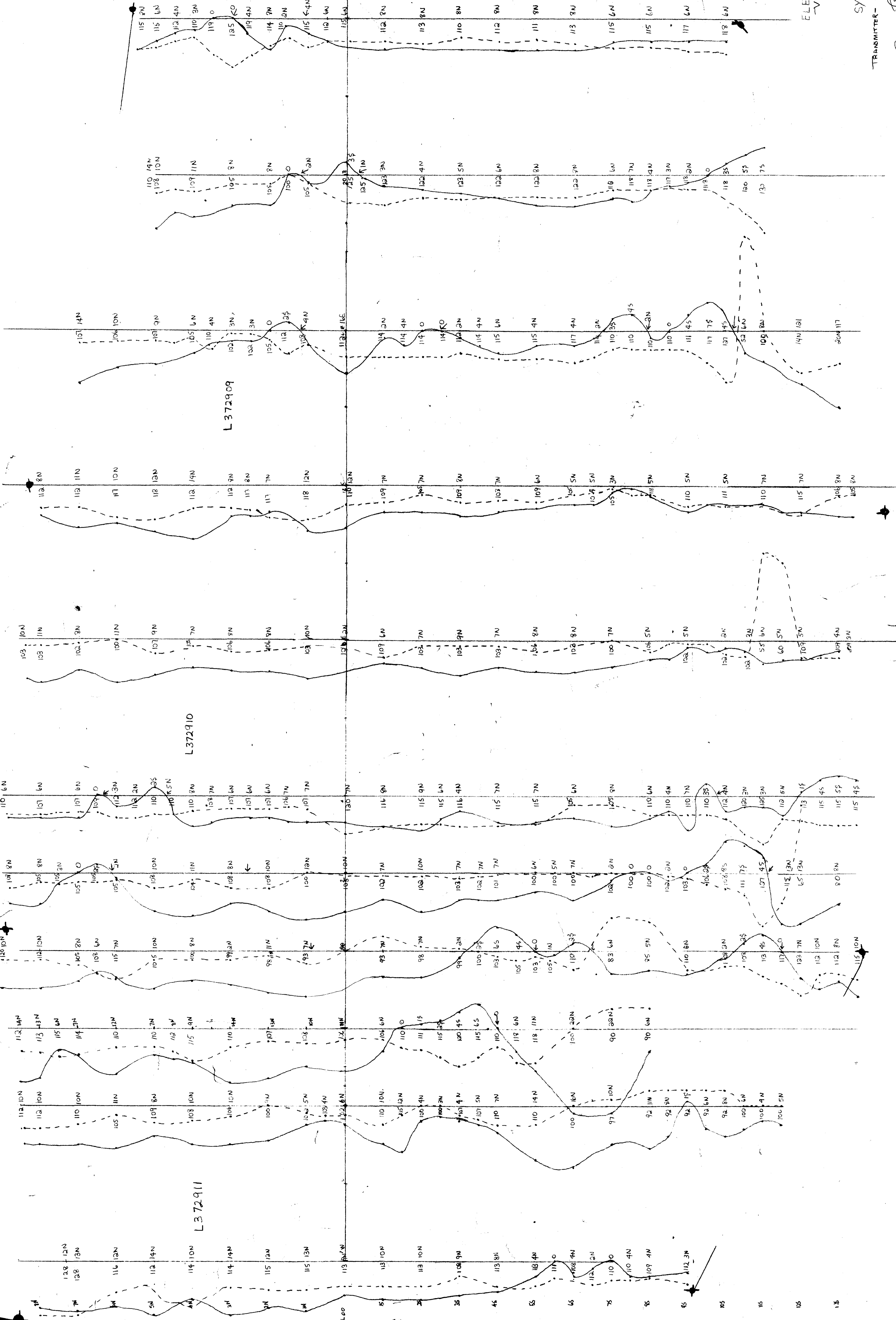
ELECTROMAGNETIC SURVEY
VLF-RADEM

FOR
FISSET, CAMPBELL, KING

BY
SYLVA EXPLORATIONS LIMITED

TRANSMITTER - CUTLER, MAINE

Carl P. D. Sherry



TRUE NORTH

