REPORT ON
A TURAM ELECTROMAGNETIC SURVEY
CAPA AND MOOSE CLAIM GROUPS
FARO AREA, YUKON TERRITORY
ON BEHALF OF
DYNASTY EXPLORATIONS LIMITED

018001

by

Peter J. Fominoff, B.A.Sc., P.Eng.

and

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November 9, 1972

CLAIMS:

Name	
CAPA	27 - 36, 45 - 51, 60
ECHO	51, 53, 55, 87 - 105

LOCATION:

About 15 miles east-southeast of the Peak of Mt. Nye, Yukon Territory
Whitehorse Mining Division
132° 62° SW

DATES:

September 2, to September 18, 1972

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Figure 1 - Property Location Map	Scale 1 inch = 4 miles
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Plate 2 - Grid and Claim Location Map	Scale 1 inch = 1320 feet

SUMMARY

Three anomalous regions were located on the Capa grid and three on the Moose grid. All zones are multiple conductors. All appear to reflect poor to moderate conductivity. Six diamond drill holes totalling 3000' have been suggested to continue the investigation of the zone. Further exploration should be guided by the results of the suggested programme.

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INTRODUCTION

During the period September 2 to September 18, 1972, a geophysical field party carried out Turam electromagnetic surveys in the Faro area, Yukon Territory on behalf of Dynasty Explorations Limited. The field work was under the direction of Mr. Tony Guernier, an experienced geophysical operator on staff with Scintrex Surveys Limited. Overall supervision was provided by the writers.

As shown on Figure 1, the survey area is located about 15 miles east-southeast of Mt. Nye. Access is by float plane from Faro.

The claims covered, in whole or part, by the present survey are listed on the front page of this report and are shown on Plate 2 (scale 1" = 1320'). Two adjacent grid areas, designated Capa claim group and Moose claim group, were surveyed.

DESCRIPTION OF METHOD AND INSTRUMENTATION

The Turam method was employed for the present survey. In comparison with other electromagnetic techniques, it is relatively unaffected by orientation errors caused by rough topography, it provides deep penetration and allows accurate interpretation of anomaly characteristics.

Electromagnetic methods detect massive sulphide bodies by measuring the secondary electromagnetic field produced by eddy currents induced in such bodies by a transmitted or primary electromagnetic field. The Turam method employs a large closed loop of wire as transmitter; the

field strength ratio and phase difference, at two nearby observation points, are measured by means of two receiver coils.

The presence of a subsurface conductor is indicated by abnormal field strength ratios and phase differences. Typically, anomalies show a correspondence between positive values of the field strength ratio and negative phase differences.

A Scintrex SE-71 instrument was employed for the survey. The receiver-coil separation was 100 feet. Six transmitting loops of the following dimensions were utilized:

3000' X 3200' (4 loops)

3000' X 4000' (2 loops)

The locations of their leading edges are shown on Plate 1.

An energizing frequency of 400 Hz was employed throughout.

The Moose grid consisted of six north-south trending grid lines laid out at 800' intervals east of a common Base Line.

The Capa grid contains six grid lines spaced 800' apart and oriented N 10° W.

Approximately 10 line miles of profile were covered on the Capa grid and 6 line miles on the Moose grid. Readings were taken every 100'.

GEOLOGY AND PURPOSE OF SURVEY

The writers are not familiar with the geology of the survey area. It has been studied by personnel of Dynasty Explorations Limited and is the subject of their reports.

The purpose of the present survey was to search for economic massive sulphide deposits similar to others in the area, for example, the Anvil deposit at Faro.

PRESENTATION OF RESULTS

The results of the present surveys are presented on Plate 1 on the uniform scale of 1" = 400'.

The Field Strength Ratios are plotted on the vertical scale of 1" = 20%; the Phase Differences have a vertical scale of 1" = 10°.

Where anomalous field distortion occurs on the electromagnetic profiles the location and the depth of the main current flow has been derived from the curve shapes. This location is noted on Plate 1 by a circle at the appropriate point. Anomalies have, where appropriate, been connected between lines to obtain the projection of the current pattern. These "conductor axes" are chosen on the basis of depth, values and other characteristics of the electromagnetic curve.

Conductivity X thickness (σt) values have been determined where possible. Highly conducting bodies (massive sulphides or graphite) generally have high σt values ($>$ 100 mhos.). Poorly conducting bodies (overburden, etc.) usually have low σt values ($<$ 10 mhos.).

To facilitate the final evaluation of the geophysical data the electromagnetic distortions are classified as weak, moderate or strong. Strong anomalies are first priority exploration targets and are represented by well defined conductors of good conductivity. Weak anomalies, on the other hand, are generally poorly defined and are targets which, on the basis of the geophysical data, are of questionable merit.

DISCUSSION OF RESULTS

Capa Grid

Three regions of anomalous electromagnetic response were observed

on the Capa grid. These are designated Zones 1, 2 and 3 on Plate 1 and are described in turn below:

Zone 1 - strikes about N 65° E across L-88 E, L-80 E, and L-72 E, over a total length of more than 2000'. It shows peak ratios and phase differences of 109% and 5° respectively on L-80 E. It gave a σt value of approximately 10 mhos. suggesting a relatively poor conductor. Its current axis depth is approximately 250'.

Zone 1 has double peaks on L-72 E and onL-80 E and could represent a series of poorly conducting horizons dipping grid north.

Zone 2 - is an inverted Y-shaped anomaly trending across L-80 E to L-48 E inclusive over a length of more than 3000'. Its southern limb strikes about N 80° E; its northern limb about N 55° E. Both limbs meet in the vicinity of Station 52 S on L-64 E. The Reduced Ratios range from about 106% - 110%; the Phase Differences range from about 5° - 7°.

Zone 2 is a multiple conductor and is open grid west. It gave σt products of 3 mhos - 6 mhos and depths to the current axes of 250' to 400' reflecting poorly conducting material.

Zone 3 - consists of three anomalies on L-104 E. The Reduced Ratios are everywhere less than 110%. The Phase Differences less than 10°. The estimated depth to the current axis is approximately 400'. The σt values is about 4 mhos reflecting relatively poor conductors.

Moose Grid

Three regions of anomalous response were also indicated by the survey over the Moose grid. Again these are designated Zones 1, 2 and 3

on Plate 1. They are described in turn below:

Zone 1 - is a pear shaped anomaly striking about N 30° E across L-24 E to L-0 + 00 inclusive. It is open grid west. It consists of a series of multiple conductors showing τ values in the range of 6 mhos - 8 mhos and depths of 200' - 300'. Peak Ratios and Phase Differences are less than 112% and 7° respectively. The indicated conductivity is weak. The probable dip of the horizons is grid north.

Zone 2 - is a group of reversed anomalies covering an area of about six acres on L-24 E, L-32 E and L-40 E. It is open grid east. The phase responses are well defined though reversed. The conductivity is extremely poor.

Zone 2 probably reflects a flat-lying surface conductor (swamp, etc.)

Zone 3 - is a well defined multiple conductor striking northeast across L-8 E and L-16 E. The Ratios and Phase amplitudes range from about 105% - 108% and 5° - 8° respectively. The indicated depths range from 175' - 250'. The τ products are poor (4 mhos - 6 mhos) indicating poorly conducting material.

CONCLUSIONS AND RECOMMENDATIONS

Capa Grid

Three regions of anomalous electromagnetic response were observed on the Capa grid. These are designated 1, 2 and 3 on Plate 1.

All the zones are multiple conductors. All appear to reflect poorly conducting material. Of the three, Zone 2 is the most extensive

(> 3000' long) and, possibly, the most significant. why?

The electromagnetic results should be correlated with other information pertinent to the Capa grid - geological data, geochemical results, magnetics, etc. Subsequent decisions on the relative merits of the various anomalous indications would be subject to such correlation. If it is decided to examine any of these anomalies by drilling the following diamond drill holes would be suitable:

DDH #1 Collar at L-72 E Station 42 S. Drill grid south at 45° for a distance of 500'.

DDH #2 Collar at L-64 E Station 47 + 50 S. Drill grid south at 45° for a distance of 500'.

DDH #3 Collar at L-80 E Station 69 + 00 S. Drill grid south at 45° for a distance of 500'.

Moose Grid

Three anomalous zones were also observed on the Moose grid. These are numbered 1, 2 and 3 on Plate 1.

All the zones are multiple conductors. They show relatively weak amplitudes and a weak conductivity signature. Zone 2, a reversed indication, is likely a flat lying conductor (swamp, etc.).

As above, the Moose grid results should be carefully correlated with the known geology, geochemistry and mineral occurrences (if any) of the area. Such correlation would arise in determining the relative merits of the various anomalies. If diamond drilling is deemed necessary the following collar locations would be suitable:

DDH #1 Collar at L-0 + 00 Station 28 + 50 S. Drill grid south at 45° for a distance of 500'.

DDH #2 Collar at L-8 E Station 28 S. Drill grid south at 45° for a distance of 600'.

DDH #3 Collar at L-8 E Station 7 + 50 S. Drill grid south at 45° for a distance of 400'.

Further drilling and or geophysical coverage of the Capa and Moose grid would be predicated upon the results of the above programme.

Respectfully submitted,

SCINTREX SURVEYS LIMITED

Michael J. Lewis, M.Sc., P.Eng.
Geophysicist

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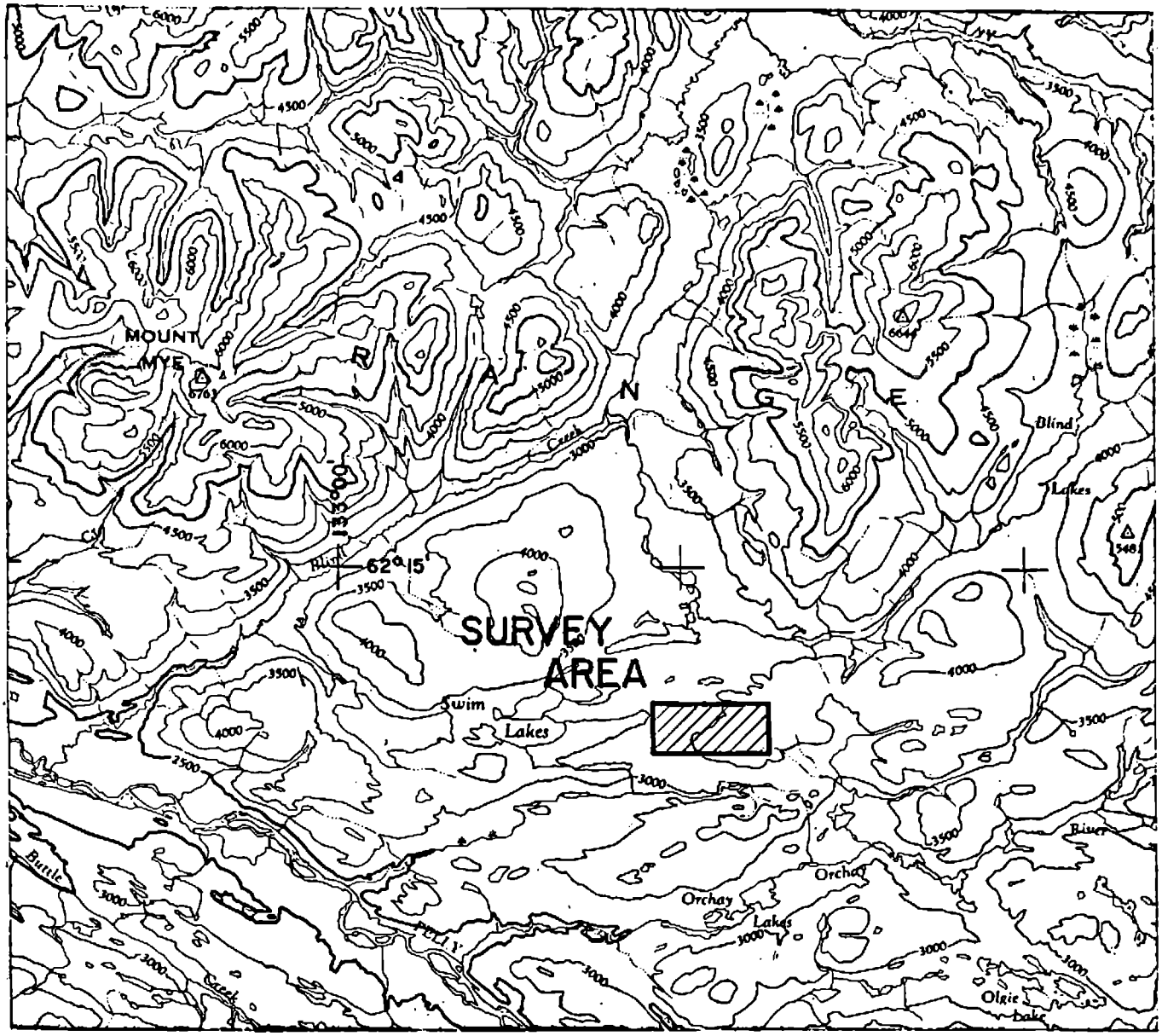
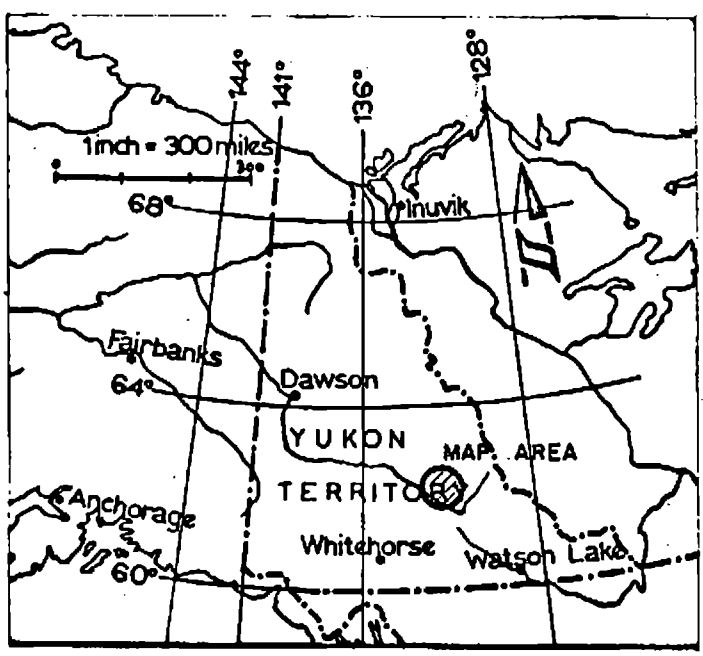
Vancouver, B. C.
November 9, 1972





DYNASTY EXPLORATIONS LTD.

LOCATION MAP

CAPA AND MOOSE GRID

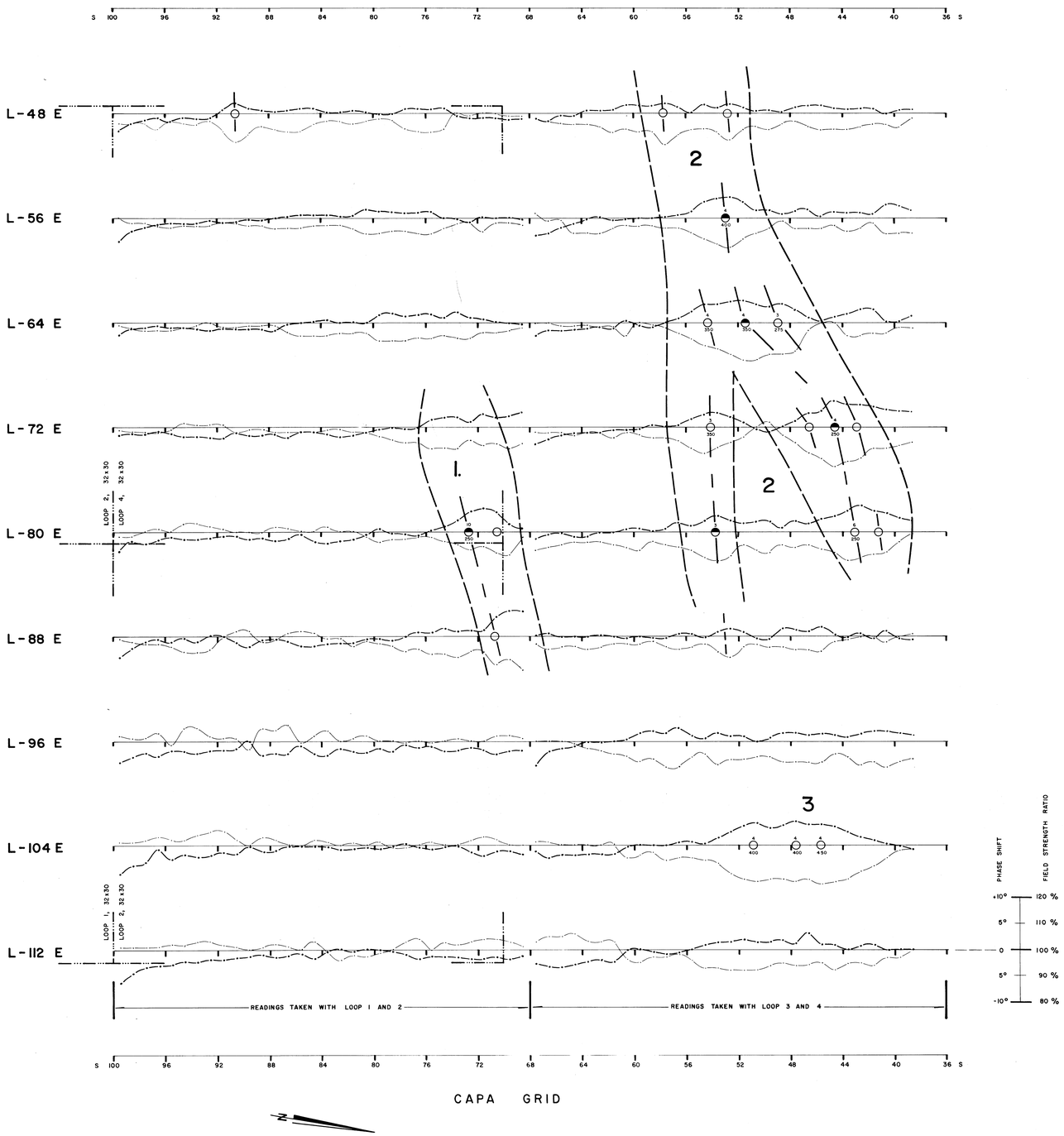
FARO AREA, YUKON TERRITORY

SCALE 1 : 250,000

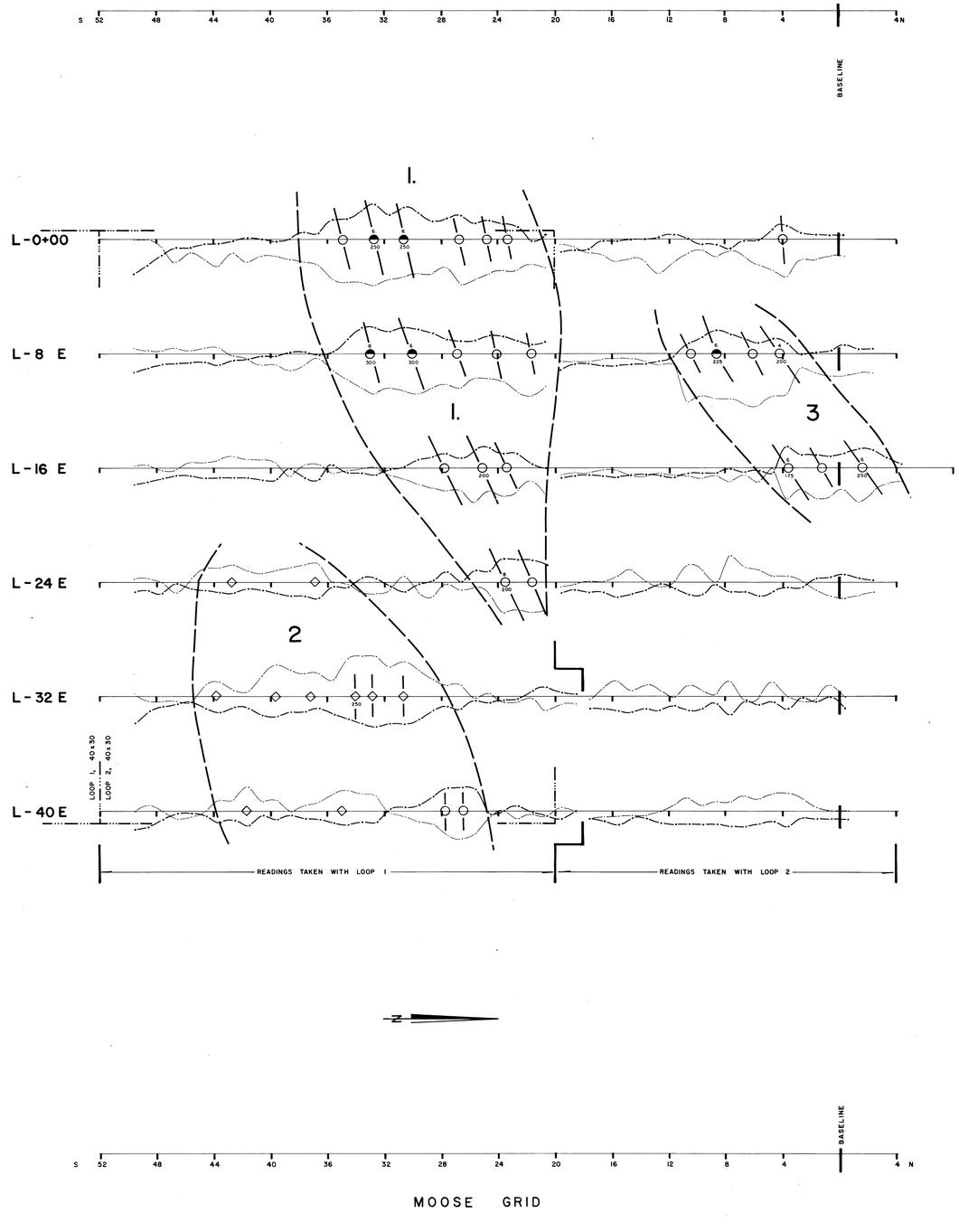
4miles 0 4miles

Survey by
SCINTREX SURVEYS LTD.
SEPT. 1972

FIG. 1



CAPA GRID



MOOSE GRID

LEGEND

- RATIO
- PHASE
- READINGS TAKEN AT 400 Hz., UNLESS INDICATED OTHERWISE.
- LEADING EDGE OF TRANSMITTING LOOP.
- 100 FEET RECEIVING COIL SEPARATION. INTERLINE SPACING TO SCALE.
- CONDUCTOR AXIS
- CONDUCTIVITY x THICKNESS (ot mhos)
- DEPTH TO CURRENT AXIS
- NORMAL ANOMALY:
  - WEAK
  - MODERATE
  - STRONG
- REVERSED ANOMALY

inches / centimetres

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YUKON GEOLOGICAL SURVEY

LOOP DIMENSIONS IN HUNDREDS OF FEET

SCINTREX SE-71 INSTRUMENTATION EMPLOYED.

PLATE I

DYNASTY EXPLORATIONS LIMITED

FARO AREA, YUKON TERRITORY

CAPA AND MOOSE GRID

PROFILES OF TURAM ELECTROMAGNETIC SURVEY

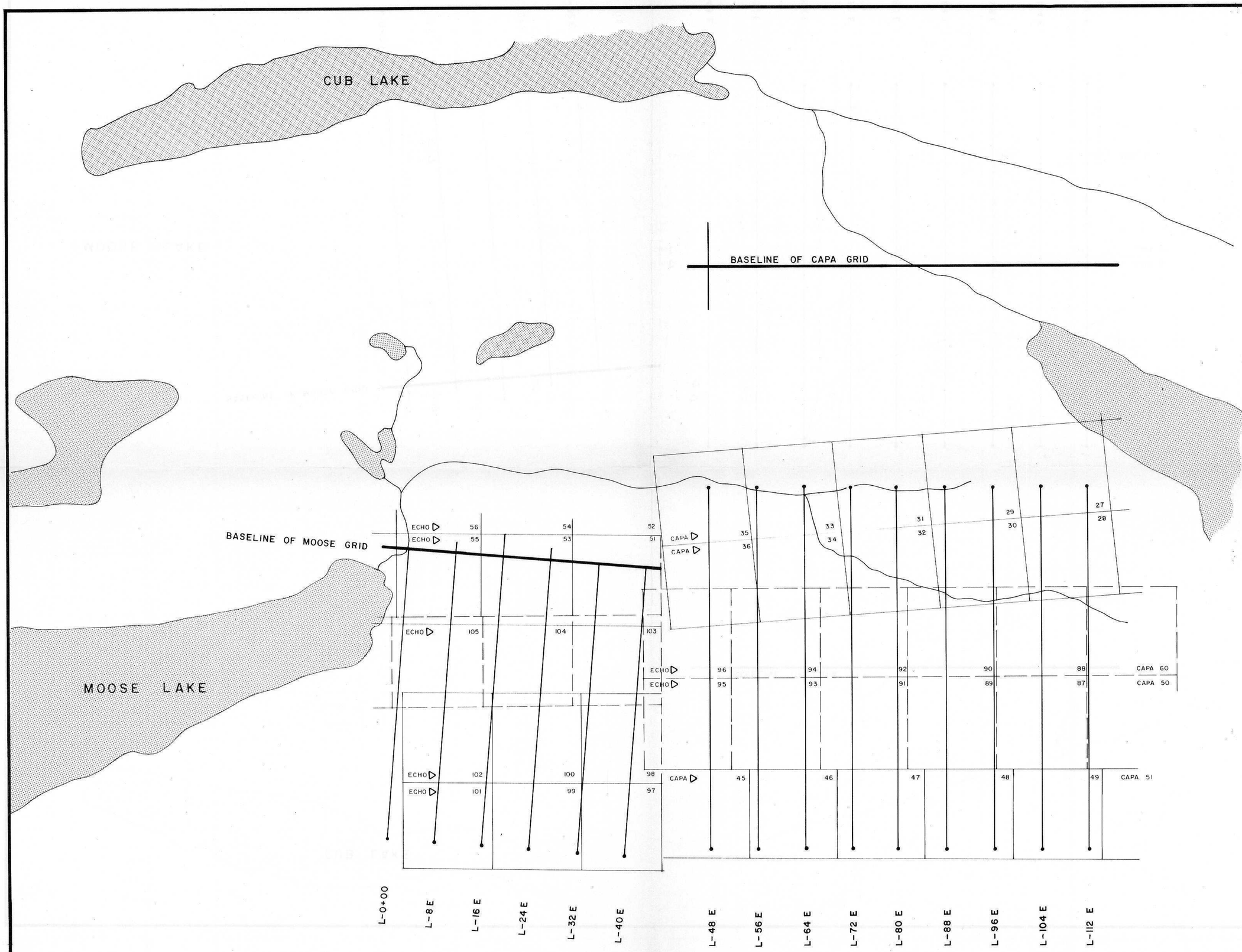
SCALE 1" = 400'

BY

SCINTREX SURVEYS LIMITED

Richard J. Fominoff

TO ACCOMPANY A GEOPHYSICAL REPORT BY MICHAEL J. LEWIS AND P. J. FOMINOFF DATED: 9. NOVEMBER 1972	WORK COMPLETED: 14.9.1972 DRAFTED: 6.11.1972 at REV.:	JOB NUMBER 678 A	SHEET NUMBER 1 OF 1



LEGEND

ECHO 2	CLAIM OUTLINE, NAME, NUMBER
	SURVEY LINE
	DRAINAGE

N

PLATE 2

DYNASTY EXPLORATIONS LIMITED

FARO AREA, YUKON TERRITORY

CAPA AND MOOSE GRID

GRID AND CLAIM MAP OF TURAM ELECTROMAGNETIC SURVEY

SCALE 1" = 1320'

BY

SCINTREX SURVEYS LIMITED

inches 0 1

centimetres 0 1 2

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YUKON GEOLOGICAL SURVEY

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