

REPORT ON
TURAM ELECTROMAGNETIC SURVEY
OVER KPO CLAIMS
IN THE
GALENA HILL AREA, YUKON TERRITORY

for

SILVER TITAN MINES

by

HUNTING SURVEY CORPORATION LIMITED

Toronto, Ontario

September, 1962

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INTRODUCTION

Hunting Survey Corporation Limited carried out a Turam electromagnetic survey over claims 28 and 30 of the KPO group held by Silver Titan Mines. This claims group is located on Galena Hill in the Mayo Mining District, Yukon Territory.

The survey was carried out by Mr. W. J. Scott and Mr. A. Skeoch of Hunting Survey Corporation Limited and helpers provided by the client.

A total of approximately 3 miles of survey was carried out using an A. B. E. M. type 1182 Turam electromagnetic prospecting unit. This instrument uses two horizontal search coils, separated by 100 feet, to record the distortions in an electromagnetic field generated by an alternating current which passes through a long grounded cable. The quantities measured are (a) the ratio of the field strength at each coil, and (b) the phase difference of the field between the two coils. The grounded cable was laid out along a base line and readings were taken along picketed cross lines perpendicular to the base line. Readings were plotted at the center of the 100-foot spread. The plotting was done in the field and a preliminary interpretation was provided to the client. The data were checked and replotted at the Toronto office of Hunting Survey Corporation Limited and a final interpretation was carried out.

GEOLOGICAL SETTING

The following geological description is taken from a report by Dr. A. E. Aho. The general area is underlain by Precambrian formations which can be divided into three major units:

- Upper Schists: - quartz-mica schists with small lenses of limestone and thin layers of quartzite near its base.
- Central Quartzites: - hard, blue grey, grey and white, thick bedded quartzites with minor intercalations of thin bedded quartzites, graphite schists, quartz-mica schists, quartz-mica-chlorite schists and greenstones. This series covers the entire survey area.
- Lower Schists: - thick schist-greenstone belt.

The formations strike approximately east-west and dip 20 to 40 degrees to the south. Mineralization is mainly concentrated in the Central Quartzites and occurs mostly in northeast-trending vein-fault systems dipping moderately to steeply south. The ore tends to be localized in the most massive members, particularly where the vein-faults intersect with each other. One of the mineralized veins which occurs in the area, the Gerlitzki vein, has been explored by trenching and drilling. The encountered mineralization consists of pyrite, siderite, sphalerite and galena. The galena is rich in silver.

No outcrops were found in the area covered by the survey.
The overburden in many places was a floating bog, sometimes
impassible, overlying glacial drift.

SURVEY RESULTS

A number of anomalies were detected by the Turam survey. In most cases these anomalies interfered with each other, resulting in a rather complex pattern. We have tried to obtain an accurate location of each individual anomaly and to construct possible anomalous trends, but in some cases the pattern was so confusing that the interpretation must be regarded as one of several possibilities.

The anomalies observed in this survey vary from weak to medium intensity. In all a total of 9 possible anomalous trends have been interpreted along with a number of individual anomalies. The indicated trends are parallel to one another and strike in a northeasterly direction. Mineralized vein-faults in the general area, such as the Gerlitzki vein, strike in the same direction. It is therefore possible that the anomalous zones are caused by a series of narrow parallel vein-faults or shear zones which carry either mineralization or graphite. The inferred geology of the claims group indicates that the anomalous trends are located in the favourable Central Quartzite formation. A series of cross-faults are interpreted from the survey results, these are shown on the accompanying interpretation map.

Only one major trend has been indicated, the other trends are of weak intensity. Due to the complex pattern of the results

some variation must be allowed in the location of the indicated conductor. The better defined anomalies give a depth to the conducting axis of 150 to 200 feet. However, these calculations are also subject to some error.

To test this anomalous group a drill hole is recommended to intersect Trend 1 on Line 124+00E at a depth of 200 feet.

SUMMARY AND RECOMMENDATIONS

The Turam electromagnetic survey over part of the KPO group of claims held by Silver Titan Mines outlined a number of conductors. These conductors, varying in intensity from weak to medium, lie in a northeasterly direction which is the strike of the known vein-faults of the area. The anomalous trend could be caused by a series of narrow parallel conductors. It is therefore believed that the anomalies could be significant and warrant further investigation.

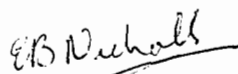
If the overburden is shallow it is suggested that this further exploration take the form of trenching and stripping. Then should the indications be favourable, a drilling programme should be undertaken. However, it is believed that the overburden in this area is deep, in which case diamond drilling will be the only means of further exploration of the anomalies. It is, therefore, recommended that the following trends be drilled:

Trend 1 - Line 124+00E to intersect at a depth of 200 feet

Trend 4 - Line 128+00E to intersect at a depth of 200 feet

Should the drilling results prove to be favourable then, of course, these trends and the other anomalous zones should be further investigated.

HUNTING SURVEY CORPORATION LIMITED


E. B. Nicholls,
Geophysicist.

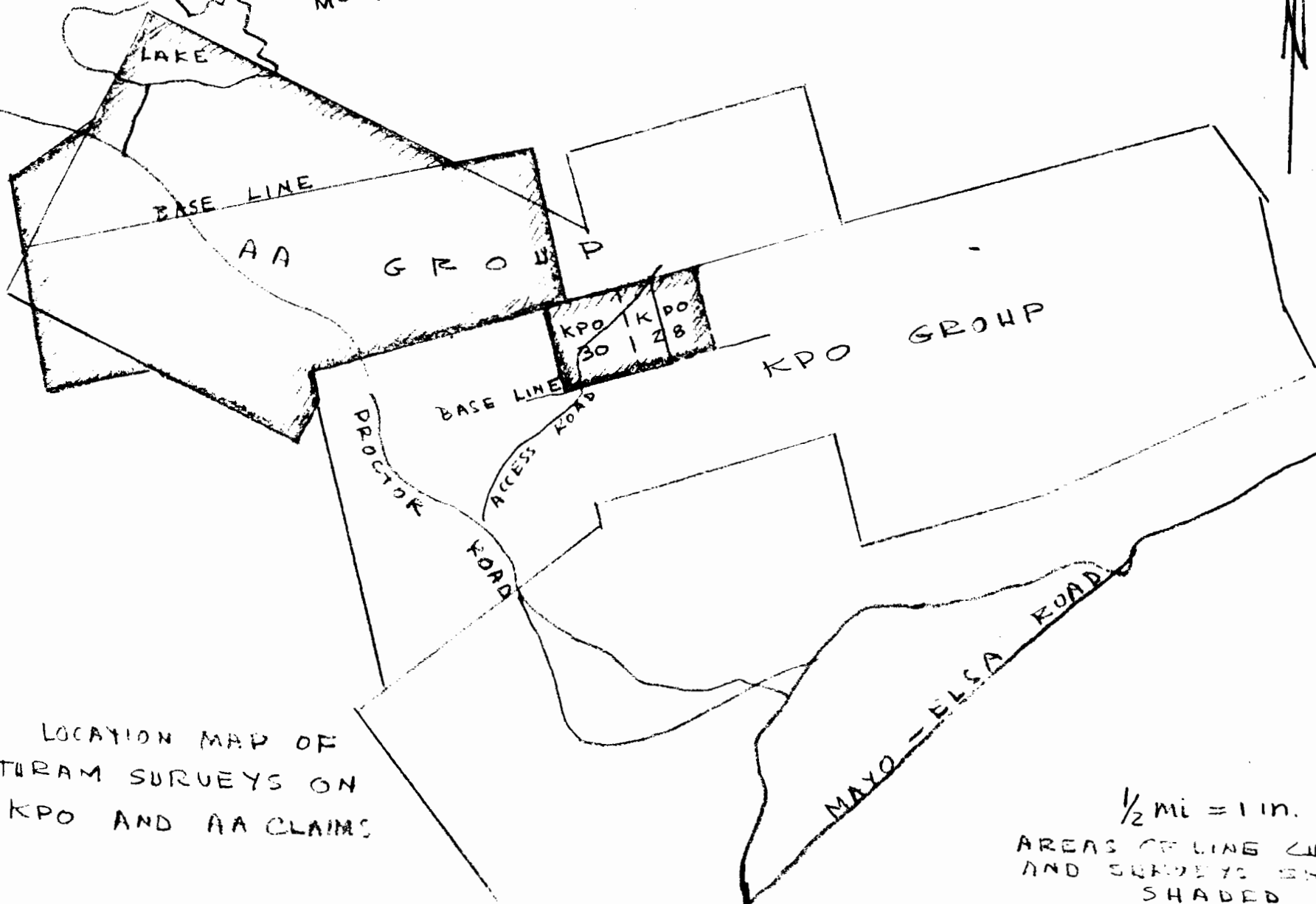


McQUESTEN RIVER

Claim Sheet No. 105M13

Longitude 135° 45'W

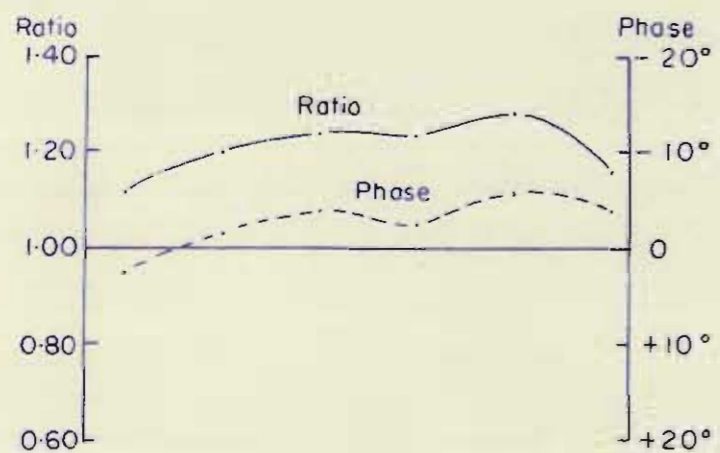
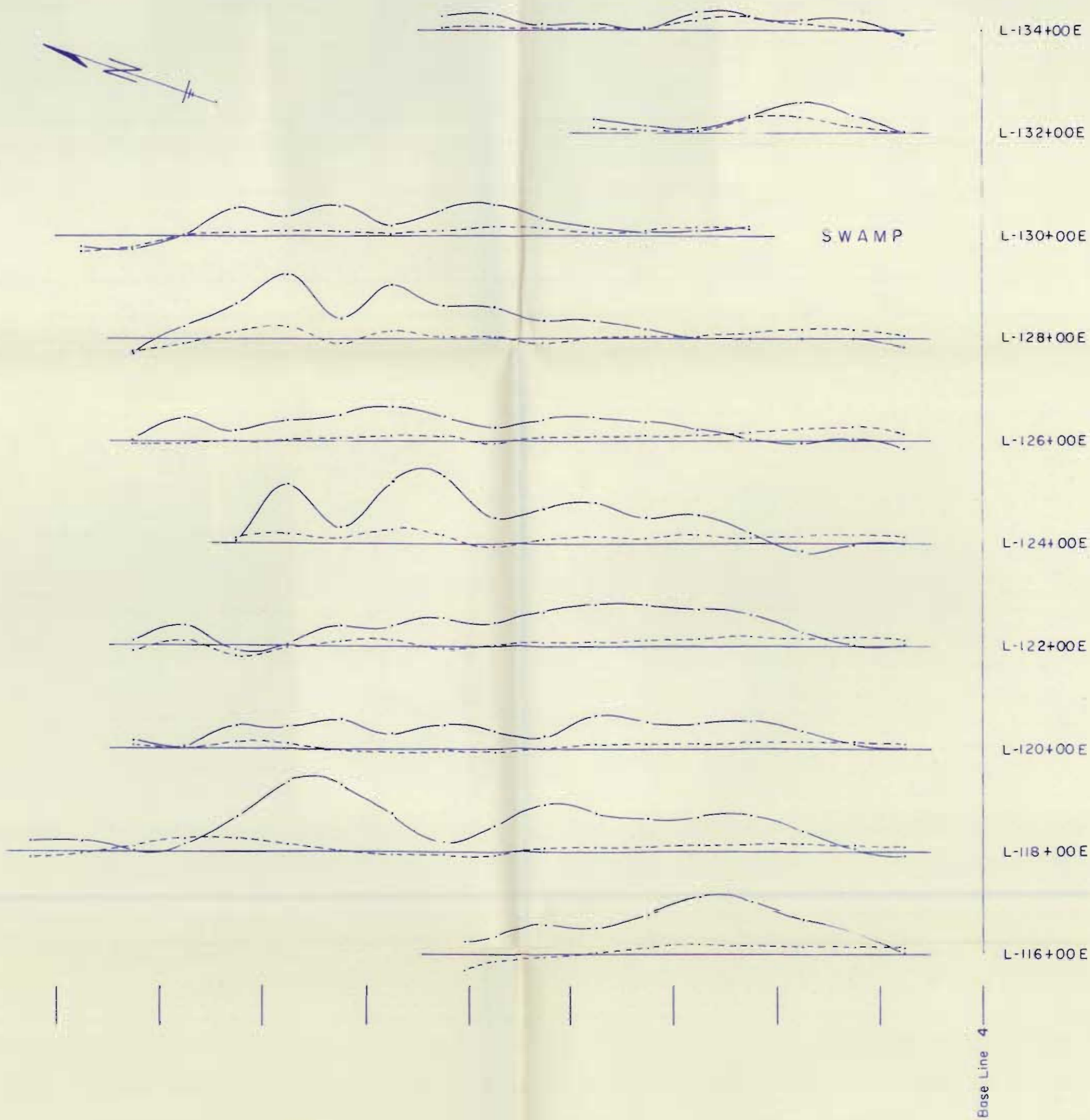
Latitude 63° 55'N



LOCATION MAP OF
TURAM SURVEYS ON
KPO AND AA CLAIMS

$\frac{1}{2}$ mi = 1 in.
AREAS OF LINE CUTTING
AND SURVEYS SHOWN
SHADED

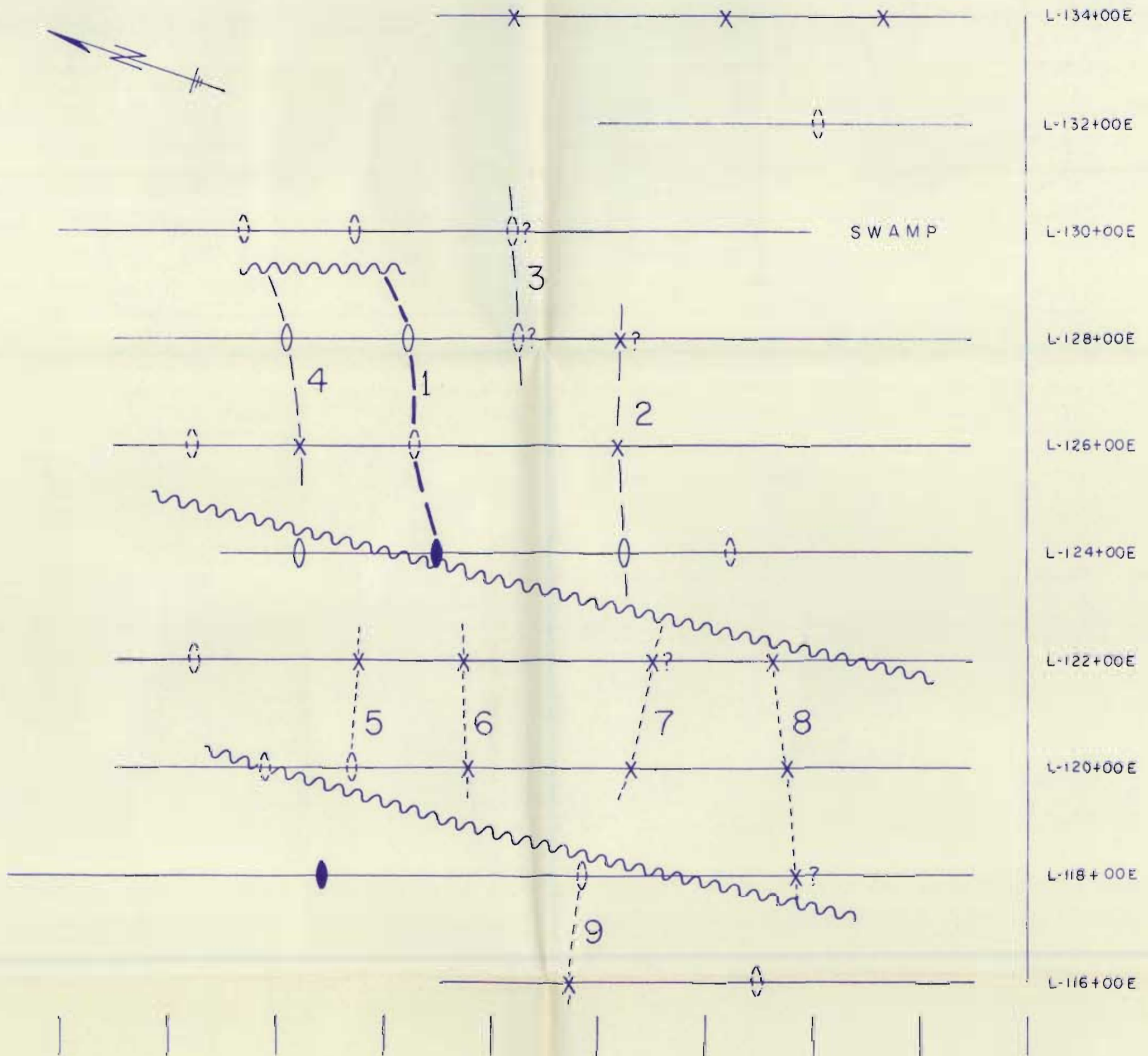
20+00N 18+00N 16+00N 14+00N 12+00N 10+00N 8+00N 6+00N 4+00N 2+00N 0+00



SILVER TITAN MINES
 KPO CLAIM GROUP
 GALENA HILL, YUKON TERRITORY
 TURAM ELECTRO-MAGNETIC SURVEY
 SURVEY RESULTS
 BASELINE No. 4

Scale: 1 inch = 200 feet
 Hunting Survey Corporation Limited, Toronto, Canada.
 September, 1962

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



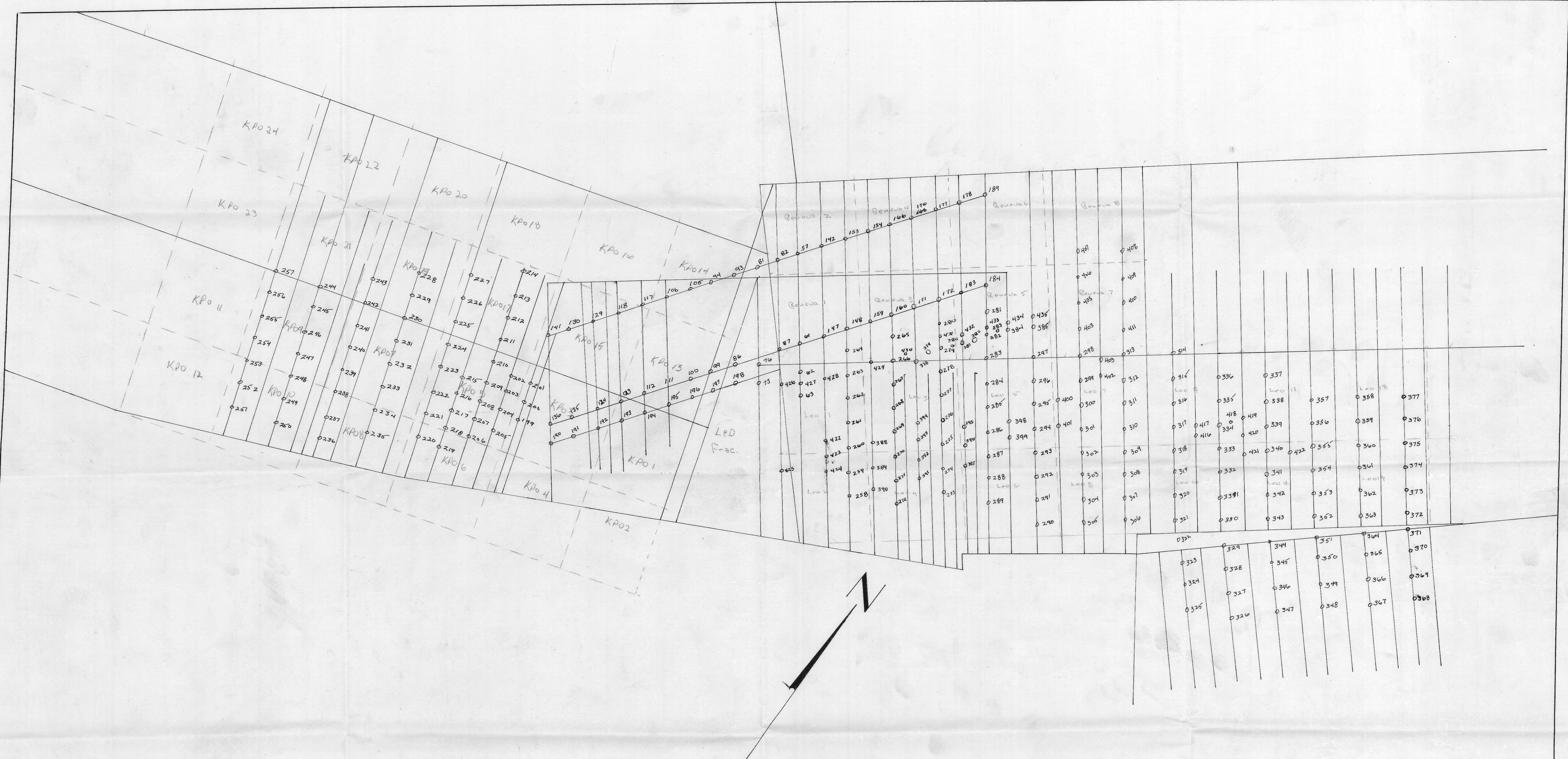
LEGEND

- Strong anomaly
- Medium to strong anomaly
- Weak to medium anomaly
- Very weak anomaly
- Location of anomaly uncertain
- Major anomalous trend
- Weak anomalous trend
- Possible anomalous trend
- Possible fault zone

Base Line 4

SILVER TITAN MINES
KPO CLAIM GROUP
GALENA HILL, YUKON TERRITORY
TURAM ELECTRO-MAGNETIC SURVEY
INTERPRETATION
BASELINE No. 4

Scale: 1 inch = 200 feet
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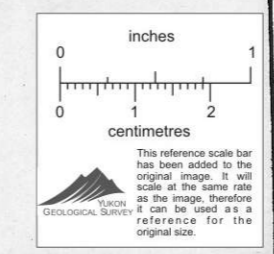
Drill Holes Have 200 Ft Centers

Average Depth of Holes: 93 ft.

SILVER TITAN MINES LTD

OVERBURDEN DRILLING PROJECT
AT GALENA HILL
LOCATION OF HOLES 199 - 277 INCL.

W. M. JUNE 16 1966





UPPER SCHIST
Foliation
on ridge.

Contours of 500 ft.
Contours of 100 ft.
Strong E.M. Anomaly
Moderate E.M. Anomaly
Weak E.M. Anomaly
Some thin lines of Survey need checking

SILVER TITAN MINES LTD
GALENA HILL PROPERTY
 Mayo, Yukon Territory
 Compilation of Exploration to Date.

01025

DRAWN BY	SCALE 1 INCH = 500 FEET	DATE
COMPILED BY		REVISED