

GEOPHYSICAL REPORT

on

APEX-MORNING Group

Sproat Lake Area

Vancouver Island

ALBERNI Mining Division

49° 18' N 125° 15' W

92F/6E

MINERAL RESOURCES BRANCH ASSESSMENT REPORT
7260
NO. _____

G.E.A. von Rosen, P.Eng.

May 1, 1979

SUMMARY

The Apex Zone on this property crosses Log creek, which appears to correlate with an extensive fault known as the Doran Lake fault. Host rocks in the area are various volcanics and diorite. Gold mineralization occurs within a 3.5m wide, steeply dipping quartz vein which according to this survey may be related with cross fault related to the Doran Lake fault. This cross fault shows an EM 16 expression which continues beyond the known extension of the Apex vein.

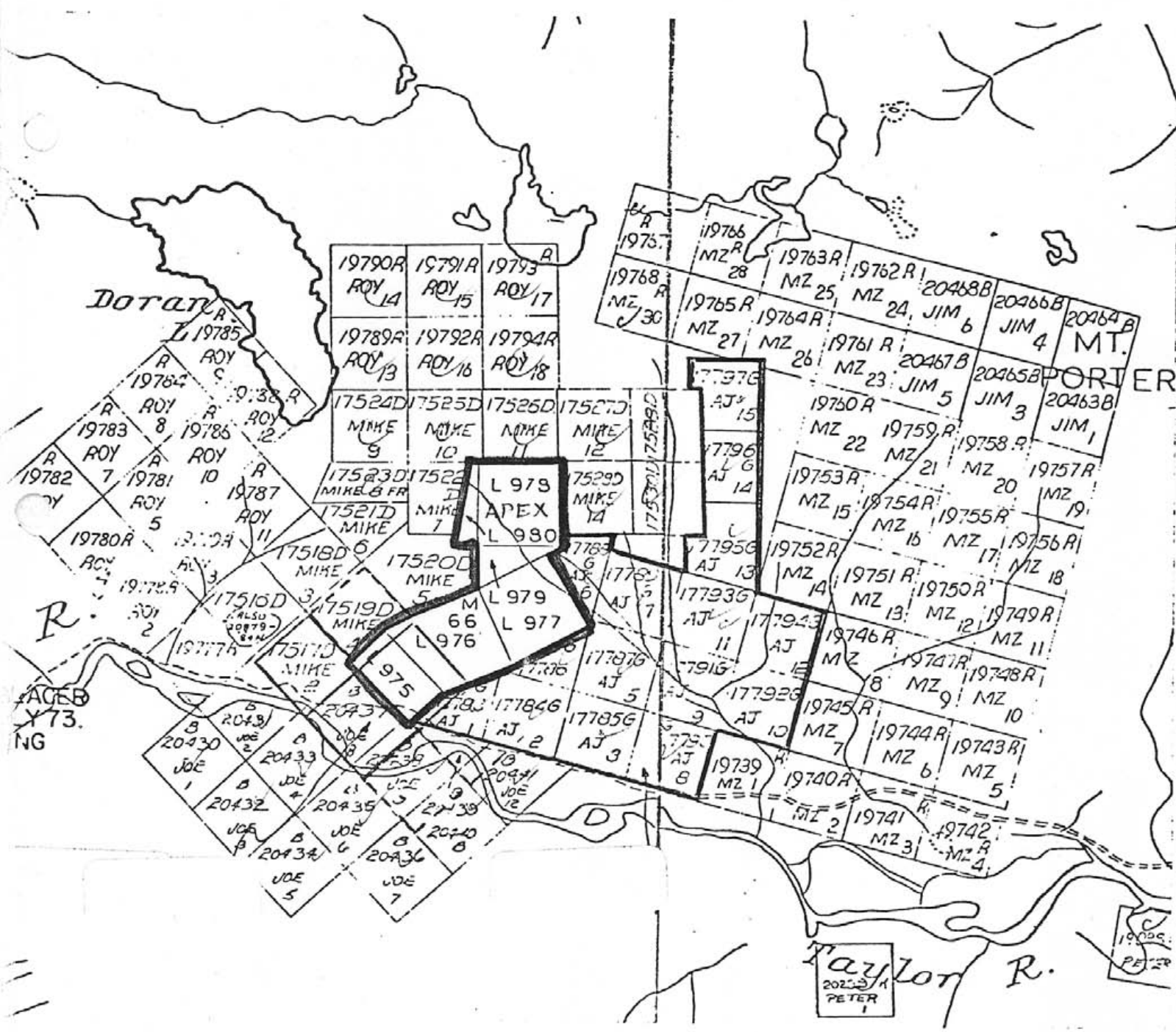
Auger soil sampling may be utilized to explore the area geochemically for gold. A bulldozed access trail would be useful as it would allow backhoe trenching to be done on the strike extensions of the vein, and to test for parallel veins.

VLF-EM 16 Ground Geophysical survey
APEX-MORNING Group
Sproat Lake-Taylor River, Alberni, B.C.

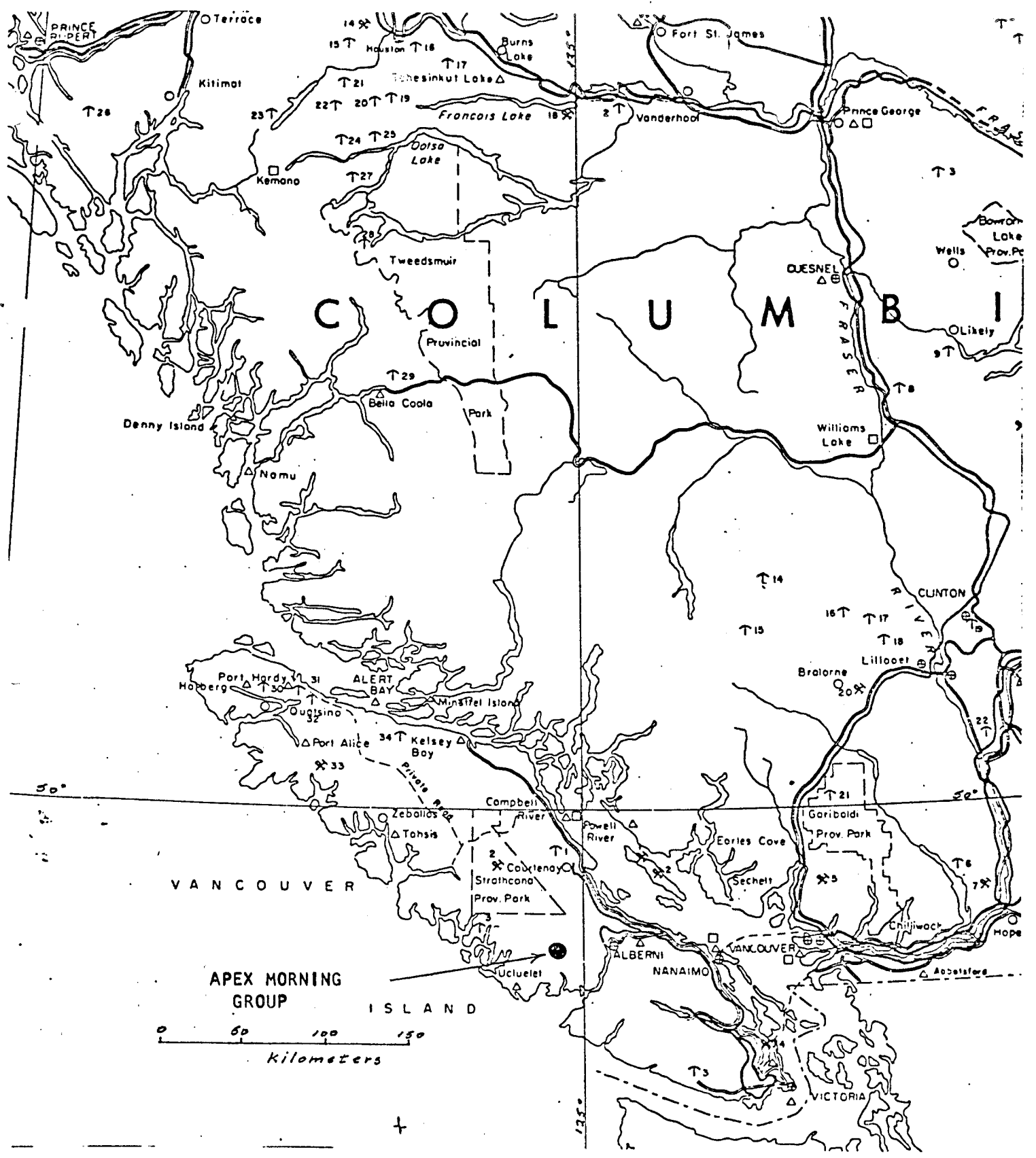
INTRODUCTION

The writer G. von Rosen and partner X. von Rosen spent two periods of time searching out and exploring the Apex property with the purpose in mind of defining the continuation of a gold-quartz vein previously reported to be averaging 0.147 oz. gold per ton over 6.4 feet from 3 trenches, and four diamond drill holes report average values of 0.114 oz. gold per ton across core lengths of 11.5 feet (true width 8 feet) for a strike length of 180 feet.

Inclement weather and rotten snow conditions during the first trip did not allow for proper completion of the job. The second performance was better and good value was gained. Some time was spent, however (2 man days) in obtaining proper soil samples, with poor success due to the thick mat of roots and organic material. The results of the EM surveys are encouraging, however, because there are indications of possible fault displacement of the vein continuation, and further work such as backhoe trenching is warranted.



CLAIMS
 APEX-MORNING GROUP



LOCATION MAP
 APEX-MORNING GROUP
 SPROAT LAKE AREA, VANCOUVER ISLAND
 ALBERNI M. D.

LOCATION AND ACCESS

The geographical coordinates of the property are

49° 19' N 125° 15' W within the 92F/6E N.T.S. map area.

The claims can be reached via the Alberni Tofino highway No.4, 37 km. from Port Alberni, 4.8 km west of Sproat Lake, immediately north of the Taylor River in the Alberni Mining Division.

The area of this survey covers the Apex Zone, 650 m ASL . within the confluence of Log Creek and smaller un-named creek in an area of unburnt large timber on the Apex claim (978). The lower portion of the claim group has been totally burnt off.

Locally excellent logging roads can be used to drive within 200 m of the Apex vein exposure. The hillside is steep in places but road access can be built down the hill to the vein from the road.

CLAIMS AND TITLE

MORNING	975	240	G. von Rosen	July 14
MORNING NO. 1	976	190	G. von Rosen	May 1
MORNING NO. 2	977	191	G. von Rosen	May 1
APEX	978	192	G. von Rosen	May 1
APEX Fr. 3	980	192	G. von Rosen	May 1
APEX Fr.	979	193	G. von Rosen	May 1

These claims are surveyed reverted mineral Crown Grants and have been acquired through application.

HISTORY

Gold bearing veins were discovered in this topographically steep and well forested area in 1899. Basically 3 zones were outlined by the old timers and considerable exploratory work has been done on these since that time. Zone One is the Apex vein about which this report is written. Previous work on this zone consists of surface trenching in 1933, and Xray drilling in 1960. A length of about 200 feet has thus been explored to shallow depth between Log creek and a smaller creek, near their confluence. The original exposure was evidently located by following the contrasting rusty quartz boulders up Log creek until their source was found in the dark colored volcanics. The vein is open at either extension, and at depth. The area known as Zone Two is much lower down the mountain near the highway. The recent underground work done by Teck Mining Group (agents for Highland Mercury Mines Limited) and by Hibernian International Development Corporation Limited, on this zone is extensive and will be elsewhere described. Zone Three covers a mineralized area near Zone 2. It is described in the literature. A forest fire has razed most of the claim area.

TOPOGRAPHY

The property lies on the northern side of the Sproat Lake - Taylor River valley which is characterized by stepped terrain consisting of steep bluffs and benches, out of the relatively narrow flat valley floor. The claims area is almost completely logged and burned giving it a very barren appearance and accentuating the rough terrain. The area specifically covered by this survey includes the valley of Log creek which follows Doran Lake fault obliquely up the hill side.

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Only the south eastern corner of the survey touches the burnt terrain, the remainder is covered by stands of tall timber with dense blue berry underbrush with generally sparse outcrop.

VLF-EM 16 GROUND SURVEY

Purpose: Previous work has indicated the possibility of the continuation of a steeply dipping 3.5 m wide quartz vein carrying gold, explored to shallow depths by small core drilling, intermittently exposed on surface for 76 m, grading between 0.1 oz/ton and 0.3 oz/ton gold. Work in this area was until recently difficult as all the supplies had to be packed up the mountain side. There exists now an excellent logging road which leads into the survey area. The price of gold is rising, steadily making the potentialities of this zone more interesting.

The purpose of this survey is to detect the existing and well defined vein, and to possibly extend its dimensions, in length, locate fault offsets, or even indicate areas of further fruitful search.

SURVEY METHOD: Instrument Crone EM16
 Station: Seattle, Wash., NPG, 18.6 kHz
 Direction to station: 110°Az
 Direction of baseline: 110°Az
 Direction of grid: 020° Az
 Declination of compass: 024°E

Ideally the survey lines would cross the elongation of the conductor at right angles, that is the conductor would 'point' at the station. In this case the station was found to be oblique to the conductor as regards direction, and the baseline was chosen to run parallel to the station direction. Readings of Inphase and Quadrature were taken always facing the grid-north. One person laid out the grid, the other took the readings. The baseline

was flagged at 25 m intervals and the grid lines were looped. Station at 30m intervals were used on the grid. There was some error in the looping process. The NPG signal was usually strong. Some time was lost with the instrument, e.g. poor battery connections.

DATA DISPLAY: The readings are plotted on the grid as displayed in Plate I. The measurements were Fraser filtered and shown as the larger numbers on Plate I. The Inphase readings were plotted to show Inphase curves on Plate II. Contoured Fraser filtered data is shown on Plate III. Plate IV displays the interpreted anomalies.

DATA INTERPRETATION: A strong rectilinear pattern of conductors is evident from the anomalies. The main conductor appears to coincide with the topographic expression of Log creek. This also correlates with Doran Lake fault. The direction of these anomalies is oblique to the grid, NW-SE. Crossing the fault zone appear three shorter conductive areas, one of which lies in the vicinity of the Apex showing. If the conductor is related to the shear zone filled by quartz containing gold, then it appears that the vein continues past its presently known confines, and to the NE rather than in the other direction.

CONCLUSIONS AND RECOMMENDATIONS

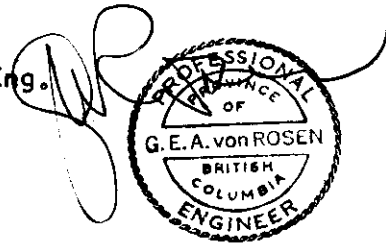
The survey was successful in pointing out several VLF ground EM conductors, one linear series of which parallels the Log Creek trend, which is reported to follow along Doran Lake fault. Another of the EM conductors relates spatially to the Apex vein, and could indicate its north-easterly continuance.

Further exploration to extend the strike limits of the Apex vein would best be done via a soil sampling program. Normal sampling methods have already been tried by the author, and it is useful to think of using an auger rather than mattock etc.

A simple trail could be built having reasonable slope, using a small bulldozer. This would allow access to a backhoe which would simplify trenching and ecological considerations.

Respectfully submitted,

Gerhard von Rosen, P.Eng.



STATEMENT OF QUALIFICATIONS

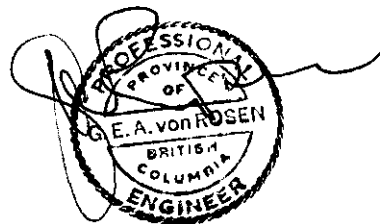
I am practicing consulting engineer.

I have performed and interpreted this kind of survey many times.

I am qualified to perform the survey and to interpret the data.

Dated: May 1, 1979

Mission, B.C.



STATEMENT OF EXPENDITURES

APEX-MORNING GROUPPERSONNEL

May 1-5	G. von Rosen	450
May 1-5	X. von Rosen	300
June 3-8	G. von Rosen	360
June 3-8	X. von Rosen	240

ROOM & BOARD

4 days @	15	60
5 days @	30	150

TRANSPORTATION

Ferry, truck, gas & oil	296
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INSTRUMENT RENTAL

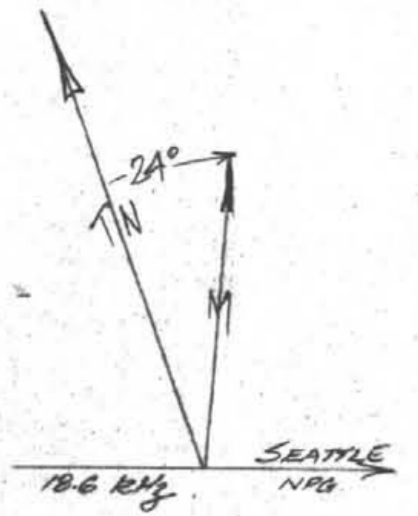
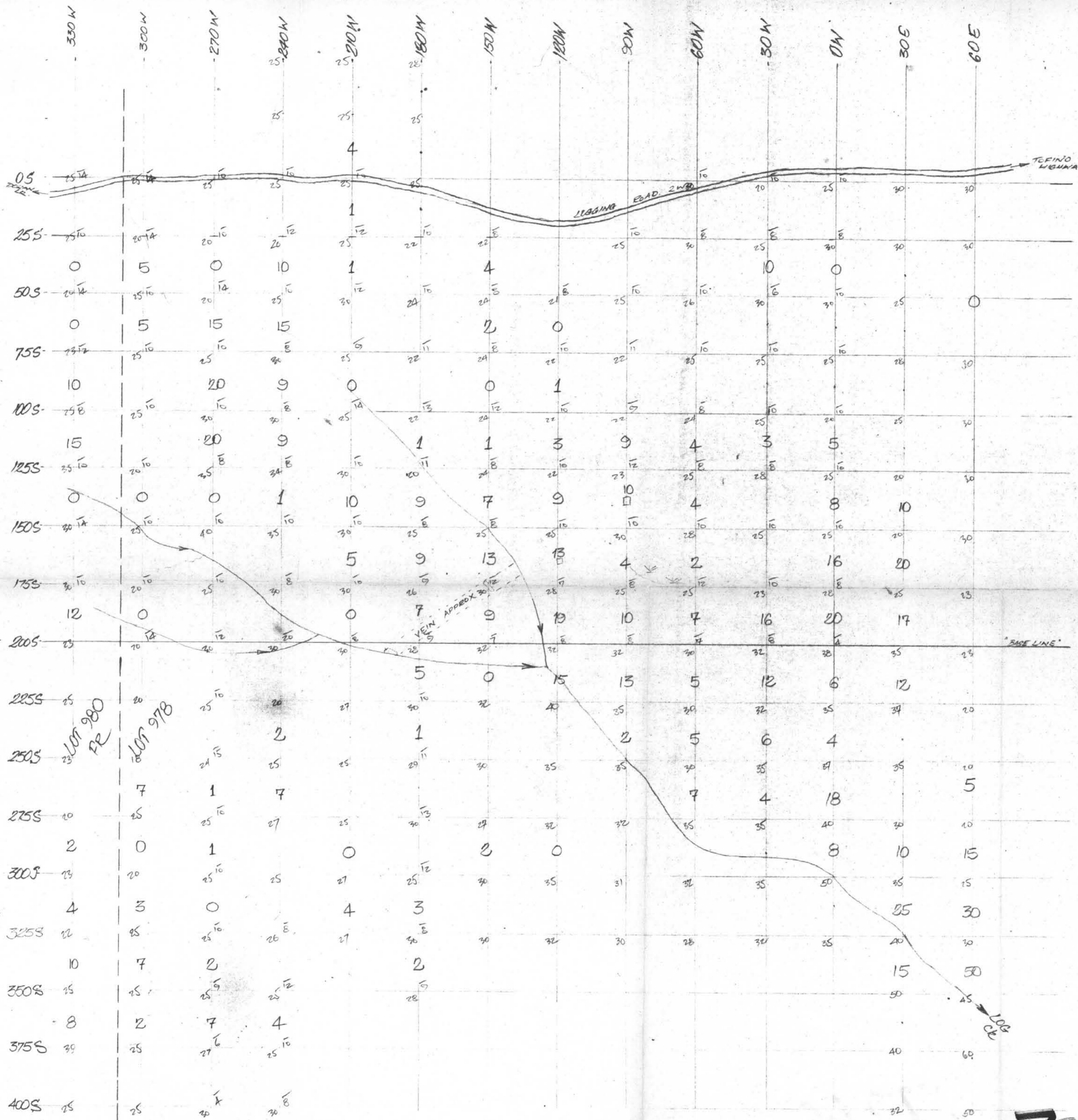
EM 16 - VLF	11 days @ 12	132
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SURVEYS

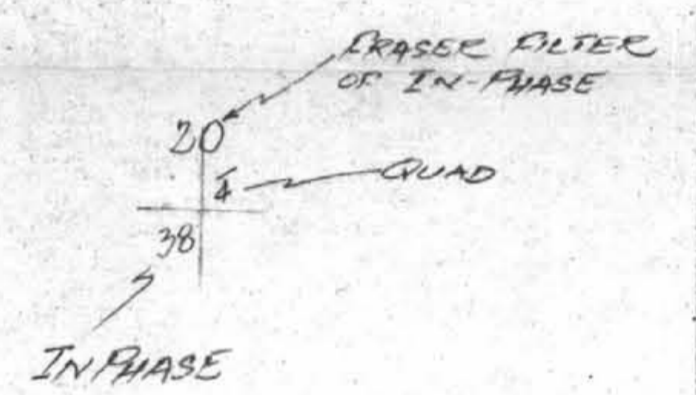
May 1-5	mob., orientation, weather, baseline, 2.5 km. grid & EM 16 readings	5 days/2.5km
June 3-8	4 days, mob., EM16, soil orientation, 2.25 km.	4 days/2.25km

<u>REPORT & COMPILATION</u>	500
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<u>TOTAL COST</u>	\$2488	9days	4.75km
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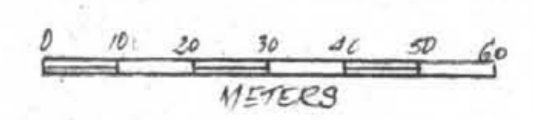
LEGEND



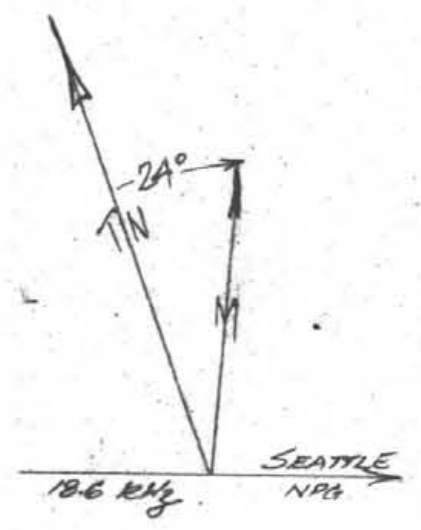
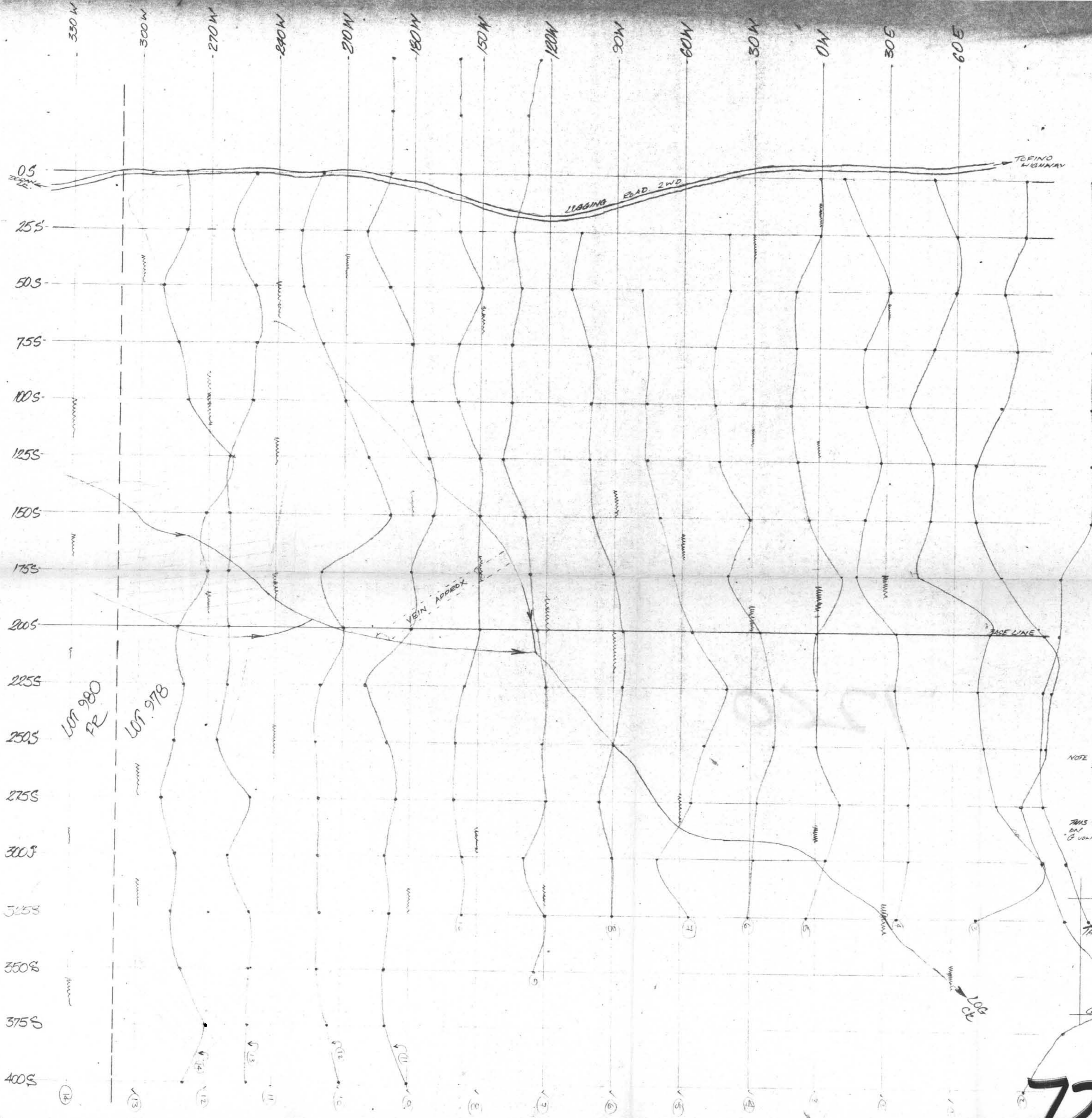
NOTE: TYPICAL COMPASS DEVIATION OF LINES NOT SHOWN

THIS MAP ACCOMPANIES REPORT DATED MAY 1, 1979 BY G. von ROSEN 7249 DATED:

APEX 978
 TAYLOR R. SPOONER, P. AUBREY
 S2FGE
 EM 16
 IN-PHASE & QUADRATURE
 FRASER FILTER
 GEAREX ENGINEERING, VANCOUVER

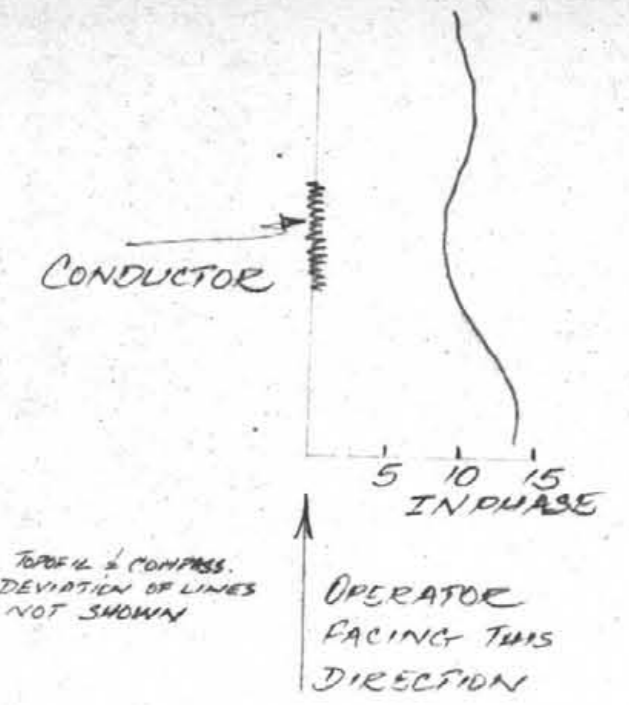


7260
 G. E. von ROSEN
 PROFESSIONAL ENGINEER
 BRITISH COLUMBIA
 PLATE # I



LOT 980
FR
LOT 978

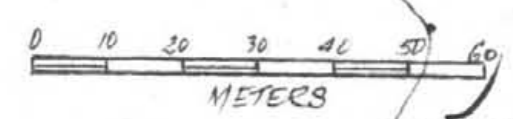
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NOTE: TORQUE & COMPASS
DEVIATION OF LINES
NOT SHOWN

THIS MAP ACCOMPANIES PERMIT
BY
G. von EISEN REIG DATED: MAY 1, 1979

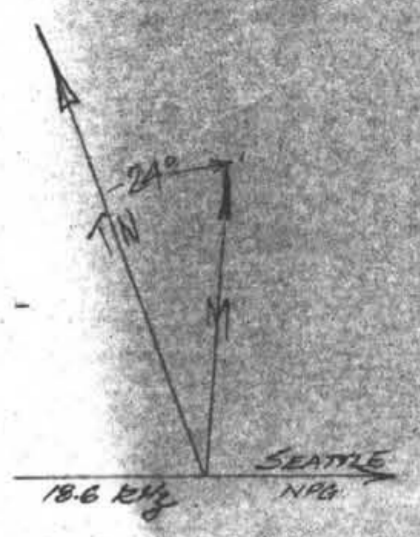
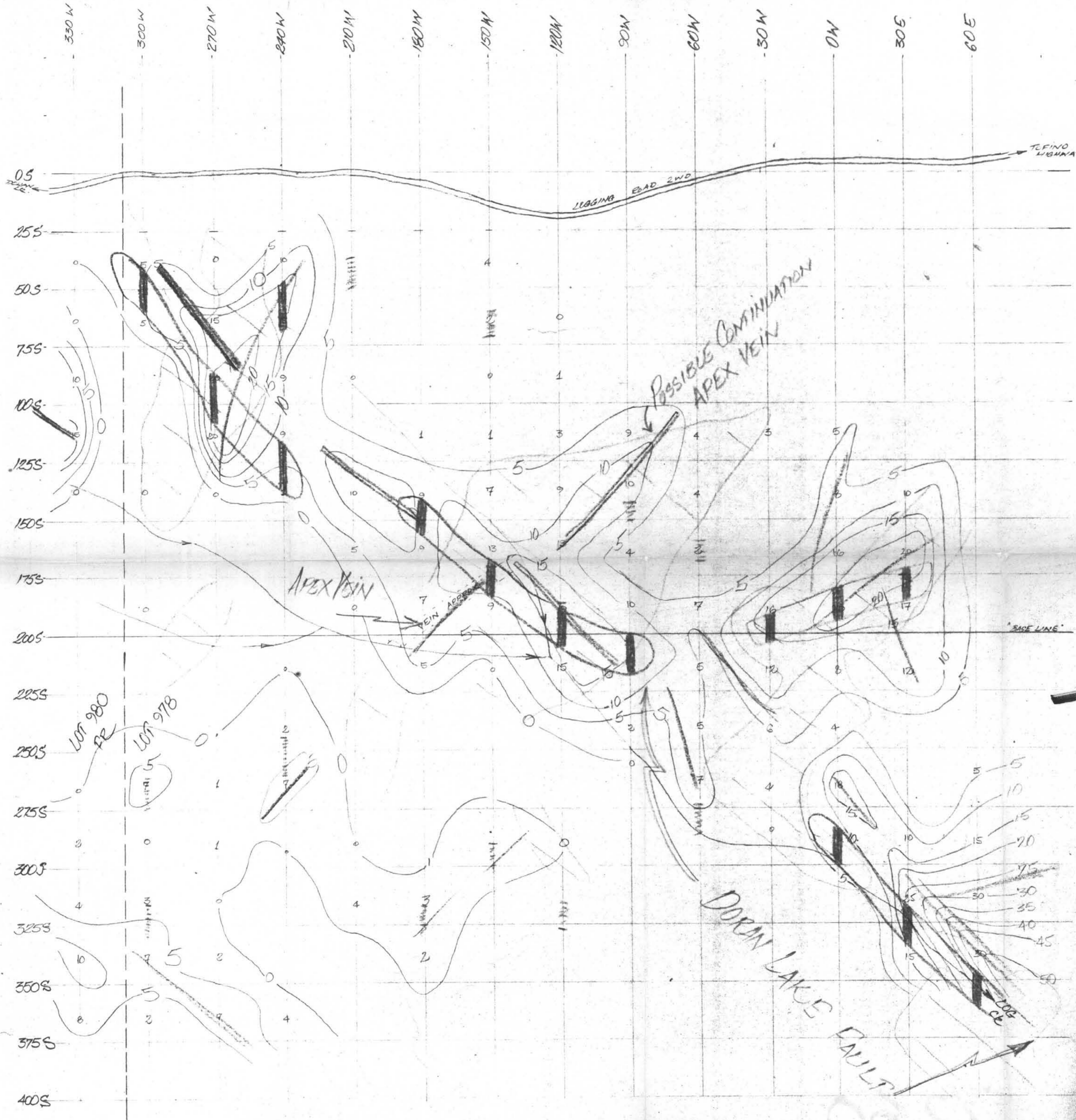
APEX 978
TAYLOR R. SPRENTLE, P. RUBENI
52 FEE
EM 16
IN PHASE
PROFILES
GEOREX ENGINEERING, VANCOUVER



7260



PLATE # 11



LEGEND

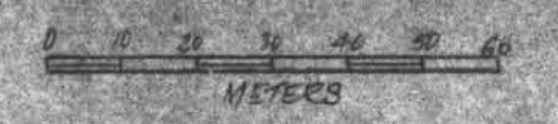
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Profiles

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NOTE: THIS IS A COMPASS
DEVIATION OF LINES
NOT SHOWN

THIS MAP ACCOMPANIES REPORT
BY
B. VAN DER WERF DATED MAY, 1979

APEX 978
TAYLOR R. SPOONER, P. AUBREY
SIT 8E
EM 16
INTERPRETATION
GEEPEX ENGINEERING VANCOUVER



[Signature]
DATE # 11