

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 94.11.19

ASSESSMENT REPORT 23130

MINING DIVISION: Nelson

PROPERTY: Bayonne
LOCATION: LAT 49 10 00 LONG 116 56 00
UTM 11 5445766 504860
NTS 082F02W
CLAIM(S): Bayonne, Maryland, Columbus, Ohio, Illinois, May 1
OPERATOR(S): Nugget Mines
AUTHOR(S): Endersby, S.A.
REPORT YEAR: 1993, 23 Pages
KEYWORDS: Proterozoic, Horsethief Creek Group, Quartzites, Limestones
Granodiorites

WORK

DONE: Geophysical, Physical
EMGR 3.3 km; VLF
LINE 3.3 km

RELATED

REPORTS: 16846, 19289, 19670, 20198, 20444, 20982, 22639
MINFILE: 082FSE030

Filed

LOG NO:	NOV 25 1993	RD.
ACTION:		
FILE NO:		

GEOPHYSICAL REPORT

on the

BAYONNE PROPERTY

NELSON MINING DIVISION, BRITISH COLUMBIA

NTS M82F/2W

LAT 49 10 LONG 116 56 W

for

NUGGET MINES LTD.
GOLDRICH RESOURCES INC.

by

S. A. Endersby, P. Eng., (B.C.)

November 15, 1993 **GEOLOGICAL BRANCH** White Rock, B. C.
ASSESSMENT REPORT

23,130

TABLE OF CONTENTS

INTRODUCTION 1

LOCATION, ACCESS, PHYSIOGRAPHY 1

CLAIM DATA 2

HISTORY 2

GEOLOGY AND MINERALIZATION 4

METHOD AND INSTRUMENTATION 4

RESULTS AND CONCLUSIONS 5

REFERENCES

AFFIDAVIT OF EXPENSES

CERTIFICATE

ILLUSTRATIONS

Figure 1 - Location Map After page 1

Figure 2 - Access Map 1:250,000 After page 1

Figure 3 - Claim Map 1:50,000 After page 1

Figure 4 - VLF-EM Grid Layout After page 5

Figure 5 - VLF-EM Profile of Line X10 After page 5

Figure 6 - VLF-EM Profile of Line X11 After page 5

Figure 7 - VLF-EM Profile of Line X12 After page 5

Figure 8 - VLF-EM Profile of Line X13 After page 5

Figure 9 - VLF-EM Profile of Line X14 After page 5

Figure 10- VLF-EM Profile of Line X15 After page 5

Figure 11- VLF-EM Profile of Line X16 After page 5

Figure 12- VLF-EM Profile of Line X17 After page 5

Figure 13- VLF-EM Profile of Line X18 After page 5

INTRODUCTION

The Bayonne property consists of 61 claim units and is situated in the Nelson Mining Division in southeastern British Columbia. It is centered on the Bayonne Mine, which was a significant gold producer with a recorded past production of 85,000 tons of ore averaging 0.47 ounces of gold and 1.12 ounces of silver per ton.

This report summarizes the results of a VLF - electromagnetic survey done in the vicinity of the Bayonne Mine. It was conducted between August 10 and October 18, 1993. The survey was done to follow up on work done the year before to determine the response of the known veins to the method, and see whether indications of parallel veins and extensions of the known veins could be picked up. A total of 3.3 kilometers of VLF-EM surveying was done with readings taken every 10 metres. Readings were taken using two VLF stations at each point.

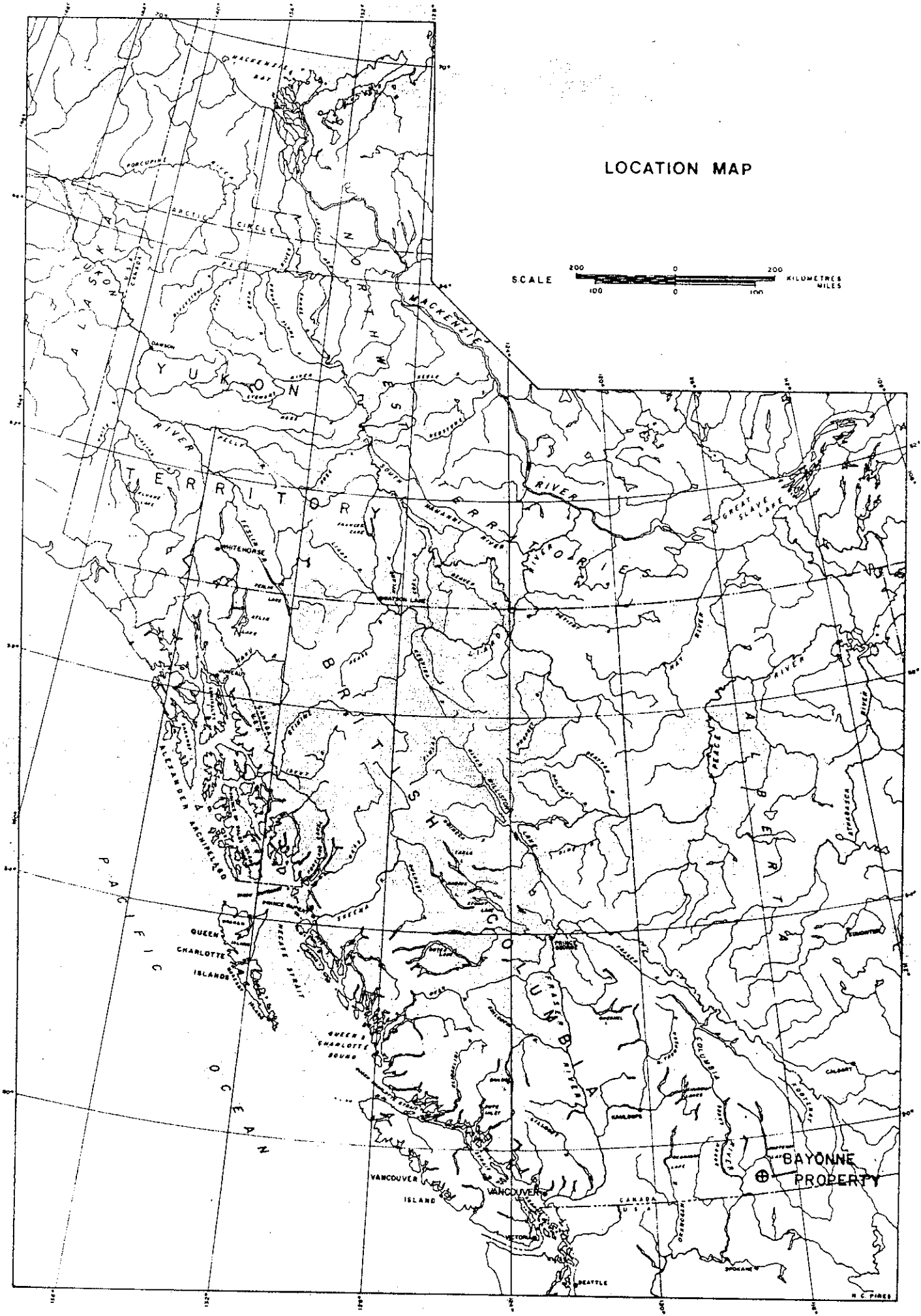
The report also summarizes the history of the camp and the general geology of the Bayonne Mine area.

LOCATION, ACCESS, PHYSIOGRAPHY

The Bayonne property is situated in the Nelson Mining Division in southeastern British Columbia, approximately 50 kilometres southeast of Nelson and 450 kilometres due east of Vancouver. It lies about 15 kilometres north of the U.S. boundary.

Access to the property is via about 6 kilometres of gravel road north up the valley of Bayonne Creek from the southern trans-provincial highway, about 32 kilometres west of Creston and 50 kilometres east of Salmo. The access road leaves the highway at about 1200 metres elevation and rises to about 1890 metres at the lower workings of the Bayonne Mine.

The topography of the property is moderately rugged, with elevations ranging from about 1350 metres to 2225 metres at the peak of John Bull Mountain. The country is heavily timbered where it has not been logged. Climatic conditions are not excessively severe.



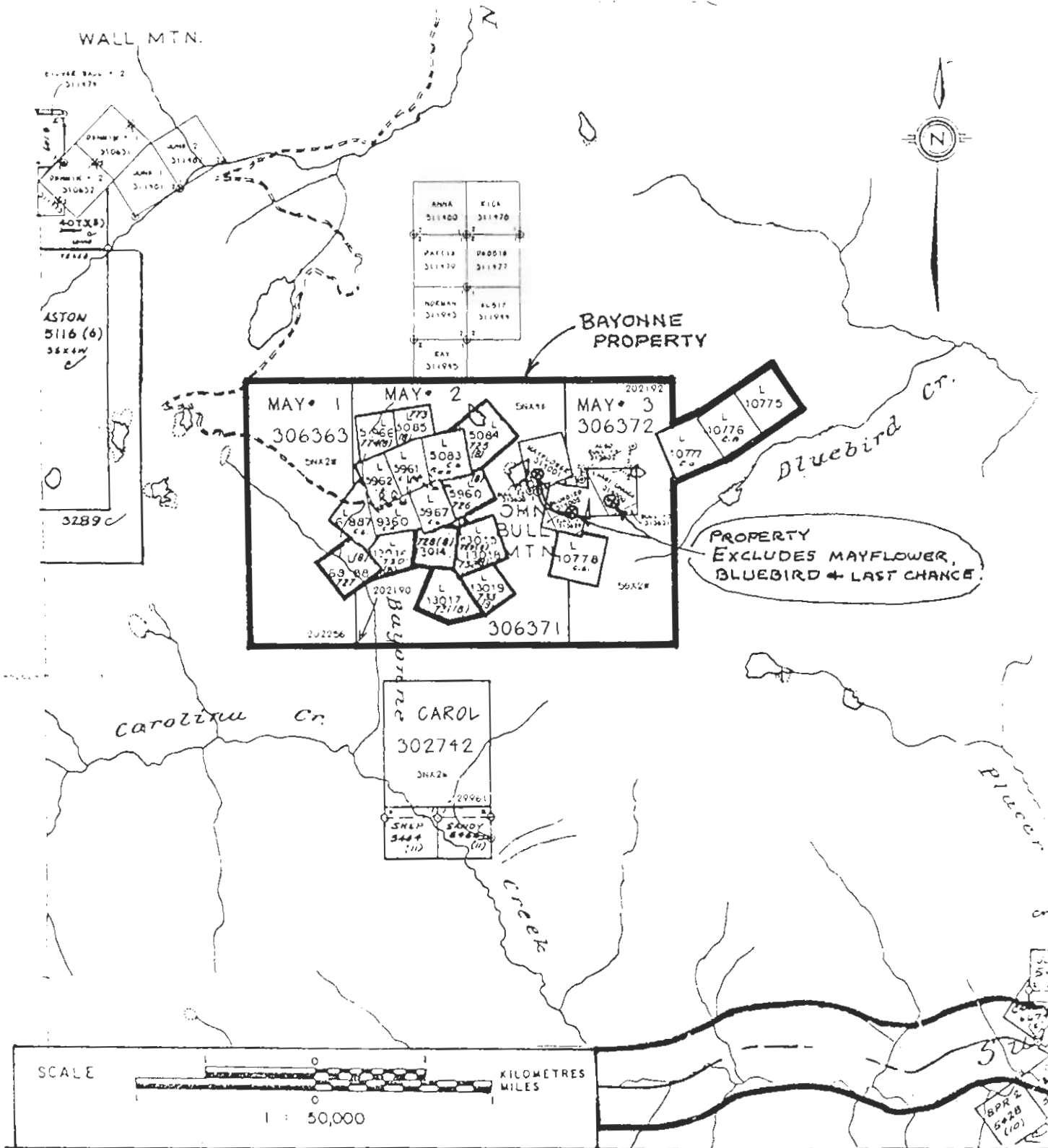
LOCATION MAP

SCALE 200 0 200 KILOMETRES MILES
100 0 100

FIGURE - 1



ACCESS MAP
BAYONNE PROPERTY



BAYONNE PROPERTY
CLAIM MAP

CLAIM DATA

The Bayonne property consists of the following claims. (See Figure 3)

<u>Claim Name</u>	<u>Title No.</u>	<u>No. Units</u>	<u>Anniversary Date</u>
Oxford	232647	1	August 15
Delaware	232648	1	August 15
Illinois	232649	1	August 15
Echo	232650	1	August 15
Echo Fract.	232651	1	August 15
Ontario	232652	1	August 15
Portland	232653	1	August 15
St. Elmo Fract.	232654	1	August 15
Idaho	232655	1	August 15
Maryland	232669	1	August 29
Kentucky	232670	1	August 29
May #1	306363	10	November 18
May #2	306371	20	November 18
May #3	306372	10	November 19
Bayonne	L. 5083(c. g.)	1	
Columbus	L. 5961(c. g.)	1	
Ohio	L. 5962(c. g.)	1	
New Jersey	L. 5967(c. g.)	1	
Virginia	L. 6887(c. g.)	1	
Shookum	L. 9360(c. g.)	1	
Michigan	L. 10775(c. g.)	1	
Maggie Aikens	L. 10776(c. g.)	1	
Summit Belle	L. 10777(c. g.)	1	
Montana	L. 10778(c. g.)	1	
	Total units	61	

HISTORY

The earliest recorded history of the Bayonne property was in 1901 when the Bayonne and Echo claims received some attention. Early work consisted of numerous trenches and three short adits on the 1st, 6th, and 8th levels developing the original vein exposures. Very little work was carried out between 1915 and 1935 when the 17 original crown grants claims including the Bayonne and Echo claims were acquired by Bayonne Consolidated Mines Ltd. Underground development and mining began and a 60 ton cyanide

concentrator was constructed, coming into full production in 1936. Production was slowed down in 1939 in favour of an extensive development program and then continued unabated up to 1942.

The mine was at a standstill due to labour and material shortage until 1945 when it began operations again until 1946. Minor tonnages were produced by lessees between 1947 and 1951.

In 1963 Torwest Resources Ltd. optioned the property and carried out rehabilitation work, diamond drilling and a resampling program under the direction of W G. Hainsworth, P.Eng. This work continued up to October, 1964. Up to 1963 access was by a 37 kilometer gravel road from Tye Siding on the west side of Kootenay Lake but the completion of the Salmo-Creston Highway in that year provided shorter access from the south. Logging roads were constructed from the Highway and extended by Torwest to the mine in 1964. The distance to the Trail smelter is about 96 kilometers.

Torwest Resources Ltd. carried out sufficient work to their satisfaction to justify construction of a new concentrator. Reserves were considered to be 12,450 tons averaging 0.79 oz Au per ton. Site preparation for the new 50 ton per day mill was commenced, two 300 ton ore bins were constructed, the main haulageway (5 level) was retracked when Torwest dropped their interest (and the option) in favour of other exploration properties.

Total production is reported as being 85,000 tons averaging 0.47 oz Au and 1.12 oz. Ag. This includes shipments made by lessees in 1947 - 1951 that totalled 673 tons averaging 0.67 oz. Au, 4.75 oz. Ag, 4.4% Pb and 2.3% Zn.

In June 1968, the property was optioned by Liberty Mines Ltd. but no work was carried out, other than an examination by G. L. Mill, P.Eng.

In early 1980 Goldrich Resources, Inc. acquired the property and began a program of rehabilitation, reforestation, diamond drilling and resampling under the direction of R.A. Wells and F. O'Grady. A trial stope on the 8 level was begun and a shipment of 43 tons averaging 0.15 oz. Au, 1.2 oz Ag, 0.4% Pb, 0.2% Zn and 78.3% SiO₂ was made to the Cominco Smelter at Trail.

In 1987 Terra Mines Ltd. optioned the Goldrich claims and conducted geochemical, geophysical surveying, trenching and sampling. In July 1990, the Board of Directors of Goldrich Resources, Nugget Mines Ltd., and Gunsteel Resources, subject to shareholder and regulatory approval, agreed to amalgamate the three companies to put all the Bayonne property, along with most of the Sheep Creek gold camp about 12 Km. to the west into one ownership to provide sufficient ore for production.

GEOLOGY AND MINERALIZATION

The area in which the Bayonne Property is located is underlain by fine to medium grained granodiorite of Mesozoic age intruding a green argillaceous quartzite, limestone and coarse sediments of the Horsethief Creek series of late Preambrian age. The property is located near the southwest end of an elongate, northeast-trending, 60 km long body of granodiorite known as the Bayonne batholith. It varies in composition from a granite to a calcic granodiorite and contains phases described as coarse grained, fine grained, porphyritic, non-porphyritic, pink and light to dark grey and is often gneissic in nature. The variety centered on John Bull Mountain and underlying the Bayonne property is referred to as the Mine Stock and H. M. Rice believes this to be a separate and older body rather than a part of the Bayonne batholith. Mineralization consists of quartz filled fissure veins striking N80E and dipping vertically. The veins vary in width from a few centimeters to 3 meters and average about 0.5 meters in width. Gold and silver are intimately associated with pyrite, galena, sphalerite and chalcopyrite.

METHOD AND INSTRUMENTATION

A Geonics EM-16 VLF-EM instrument manufactured by Geonics Limited was used for the survey. This instrument measures the in-phase and quad-phase of a vertical magnetic field as a percentage of the horizontal primary field. The instrument has a resolution of 1%.

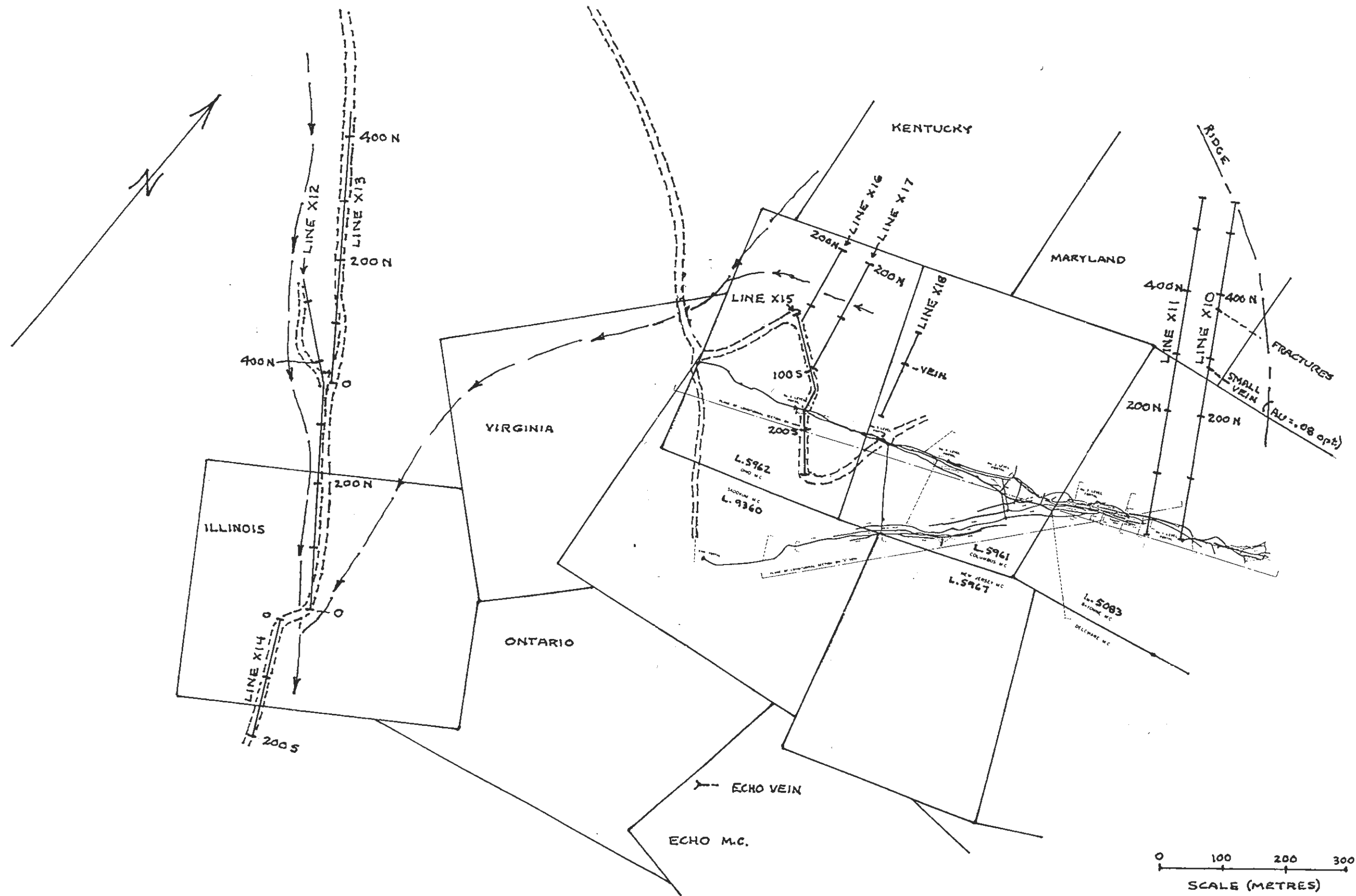
A total of 3.3 kilometres of VLF-EM survey was conducted on the Bayonne property. Readings were taken at 10 metre intervals along nine grid lines. The survey was conducted using Annapolis, Maryland (21.4 kilohertz), Seattle, Washington (18.6 kilohertz), and Hawaii (23.4 kilohertz) as the transmitting stations. Hawaii was used on one of the days when Seattle was off the air. Readings were taken using two of the stations at each point.

The VLF-EM method utilizes an electromagnetic field transmitted from radio stations in the 12 to 24 kilohertz range (long range submarine communication signal). The magnetic field transmitted from the station will be horizontal. Conductive bodies (such as the presence of massive sulphides or fault structures) in the earth's crust, will create a secondary magnetic field. By measuring various parameters of the vertical component of the secondary field, conductive zones can be located and to a degree, evaluated.

RESULTS AND CONCLUSIONS

The results are somewhat inconclusive as to the ability of the method to pick up the veins on the property. The Annapolis station appears to be picking up the westward extension of the North vein on Lines X17 and X18. There is a very strong response and crossover with both VLF stations on Line X15 where it crosses the Bayonne vein. However there is an old tunnel below this point about 25 feet below the surface and there may be track or pipe remaining and causing the strong response.

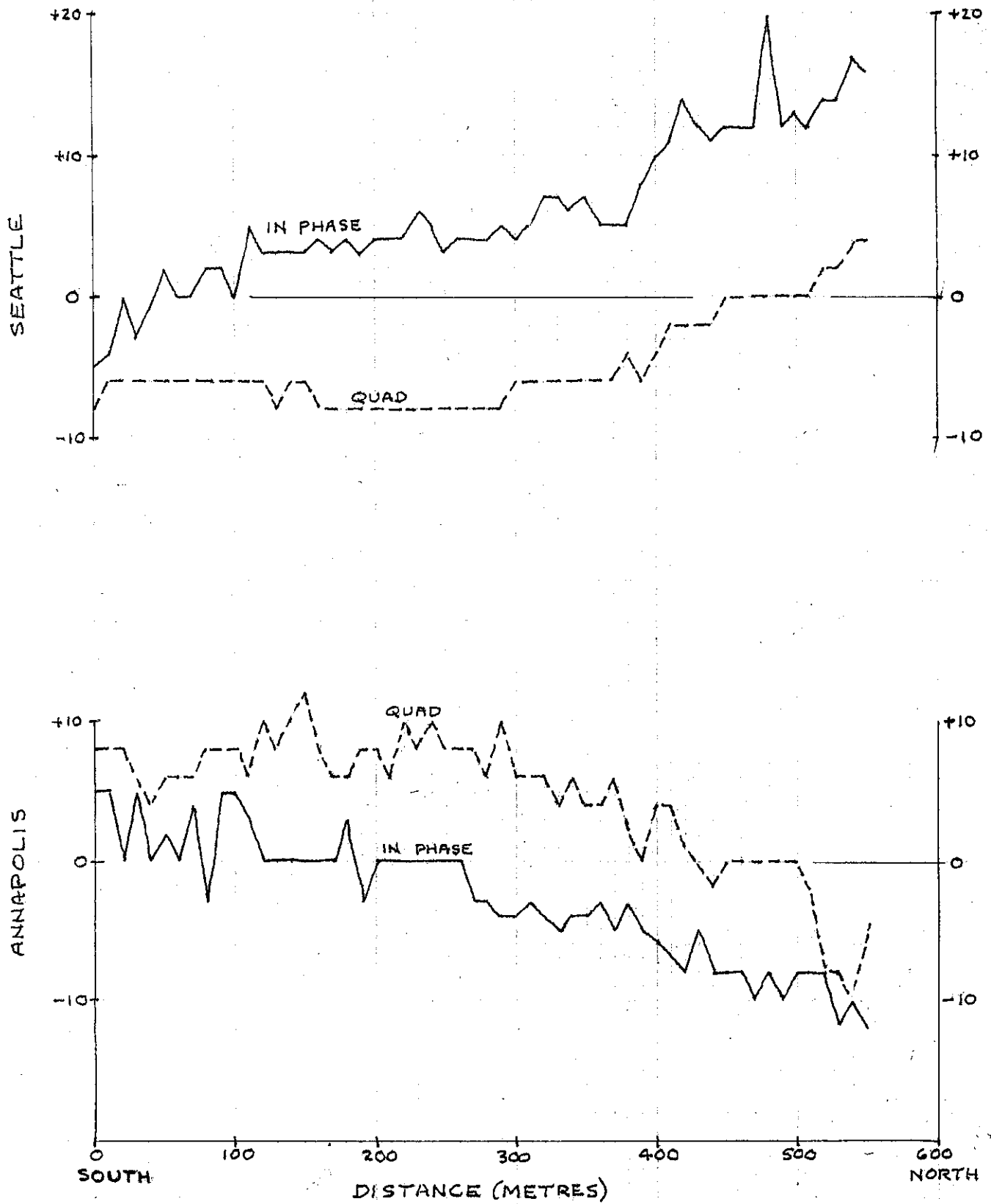
There is a small vein at about 290 metres north on Line X10, but the VLF did not pick it up. Additional long grid lines paralleling Lines X10 and X11 should be put in to the west.



LAYOUT OF GRID LINES
FOR VLF-EM SURVEY
BAYONNE PROPERTY

FIGURE 4

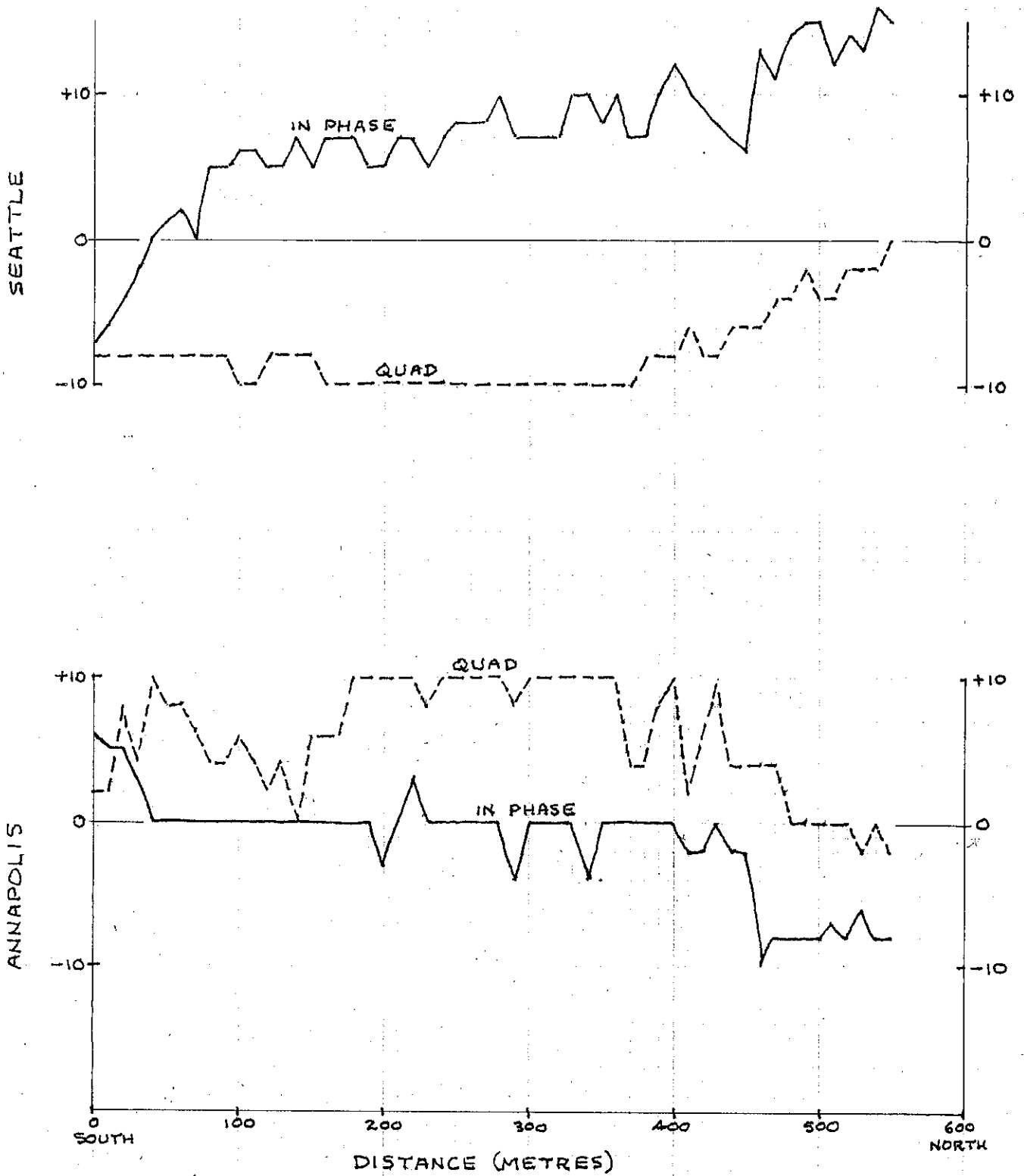
LINE X10



VLF-EM PROFILE
BAYONNE PROPERTY

FIGURE 5

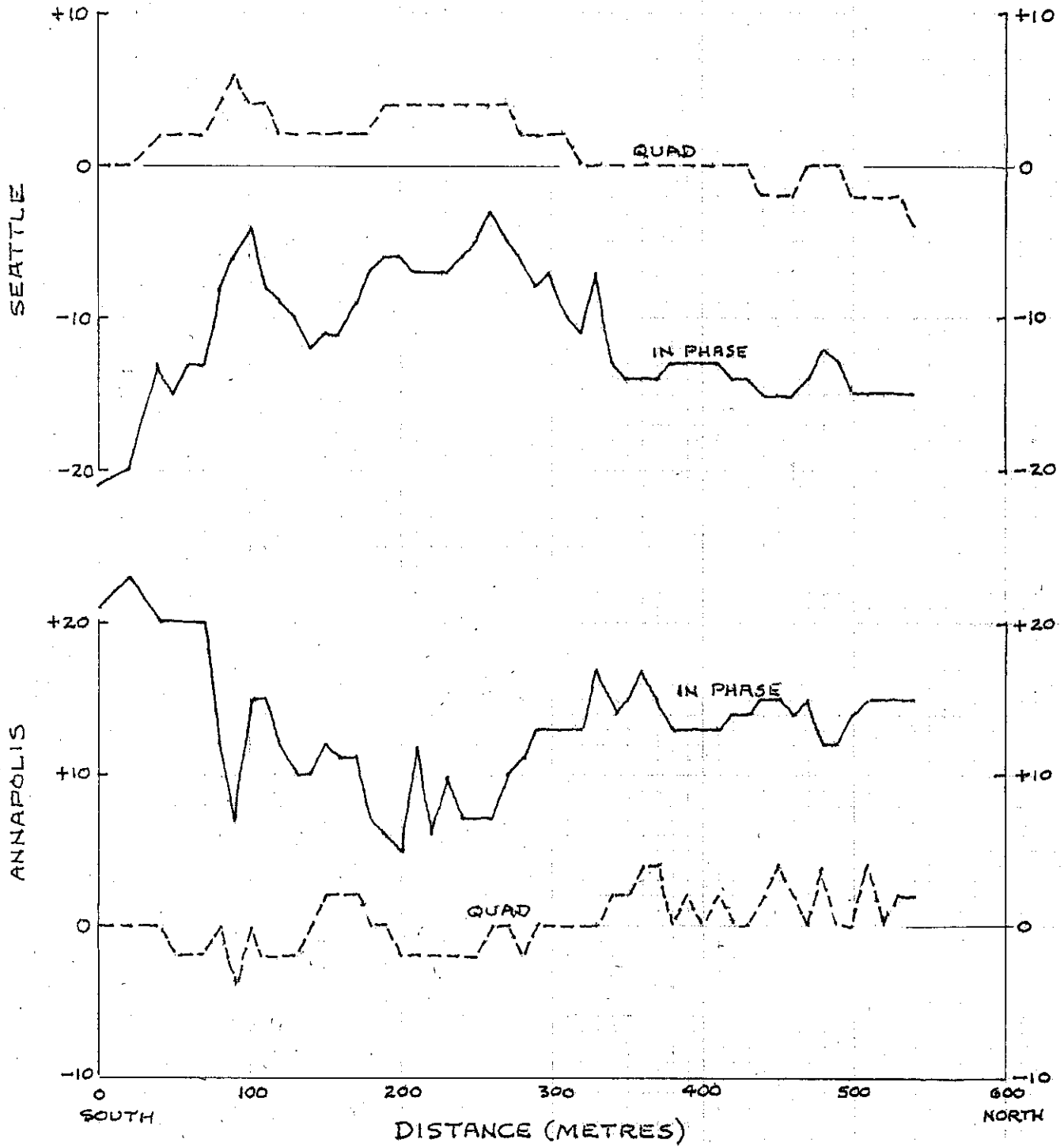
LINE XII



VLF-EM PROFILE
BAYONNE PROPERTY

FIGURE 6

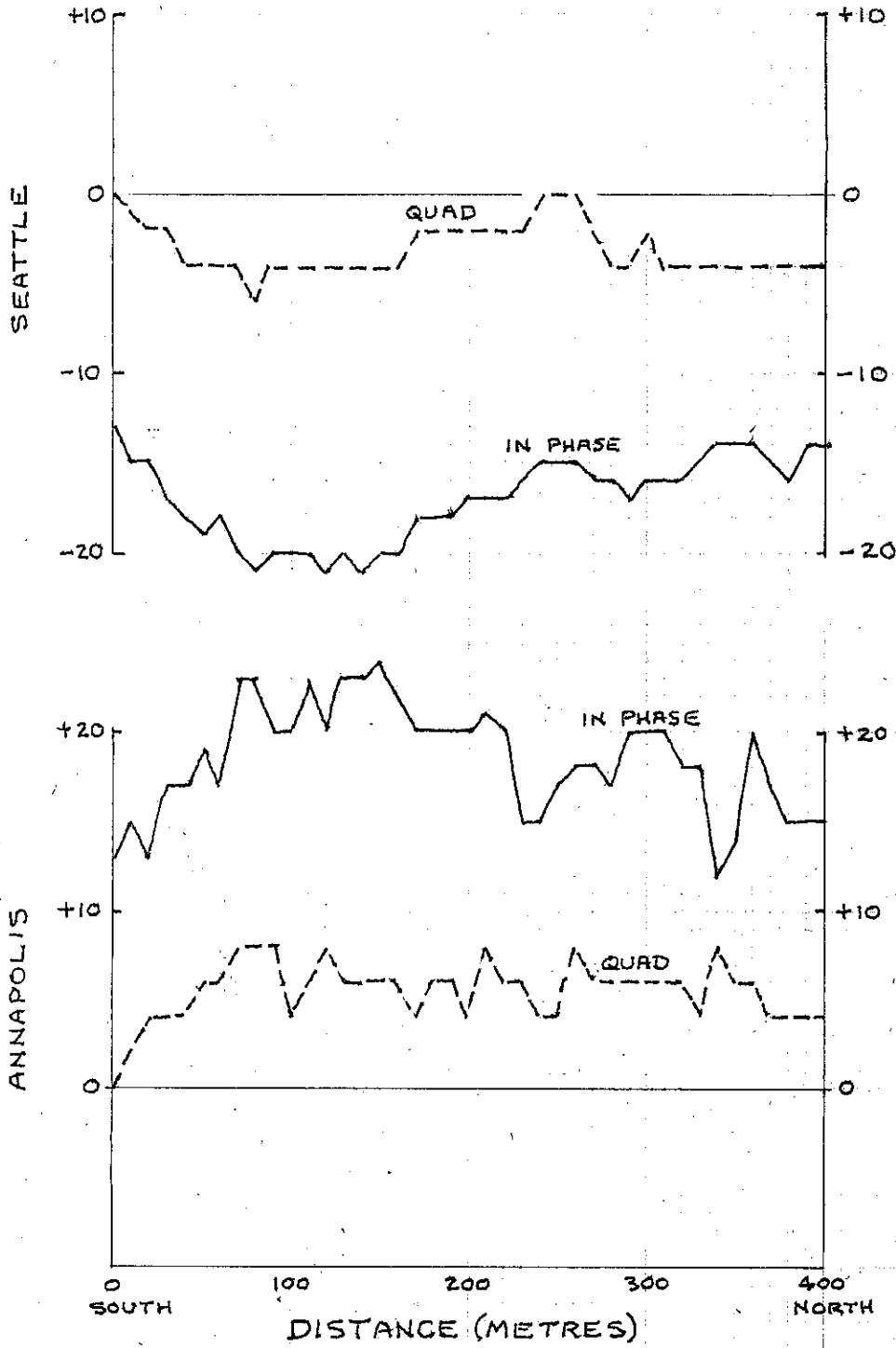
LINE X12



VLF-EM PROFILE
BAYONNE PROPERTY

FIGURE 7

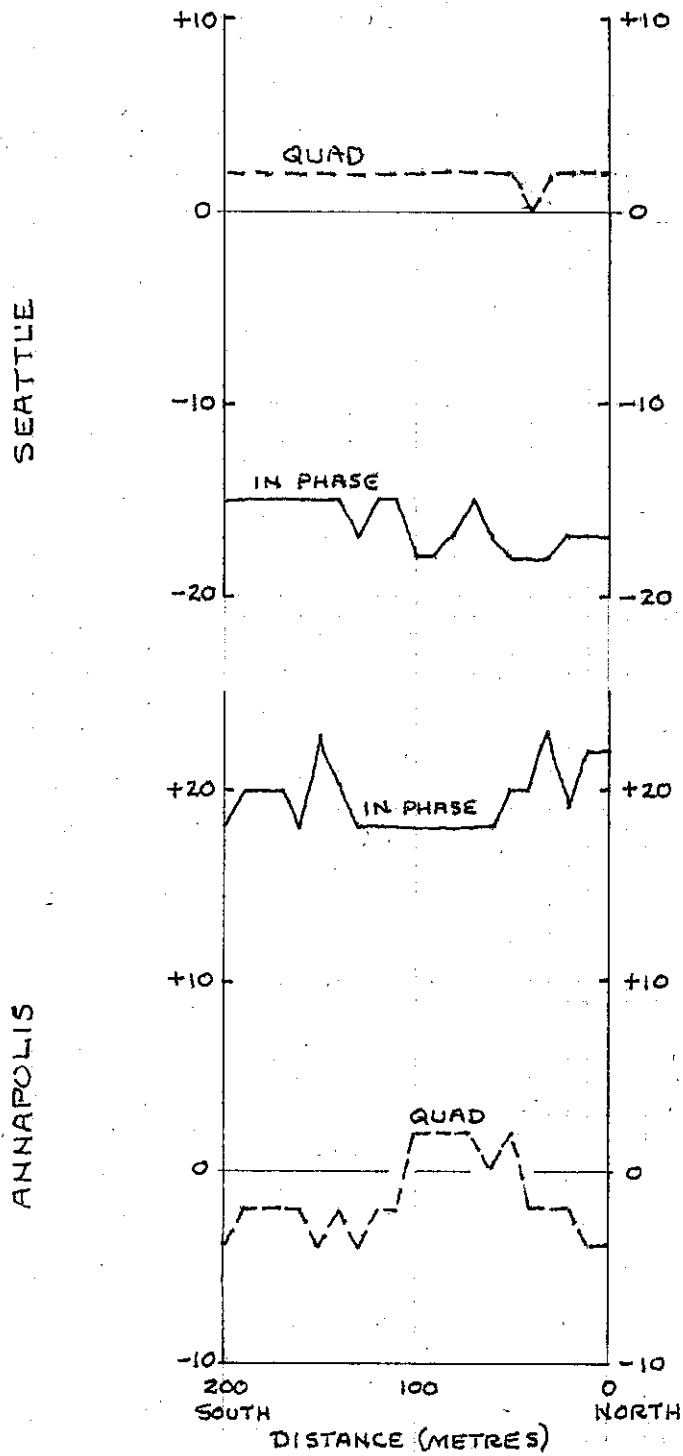
LINE X13



VLF-EM PROFILE
BAYONNE PROPERTY

FIGURE 8

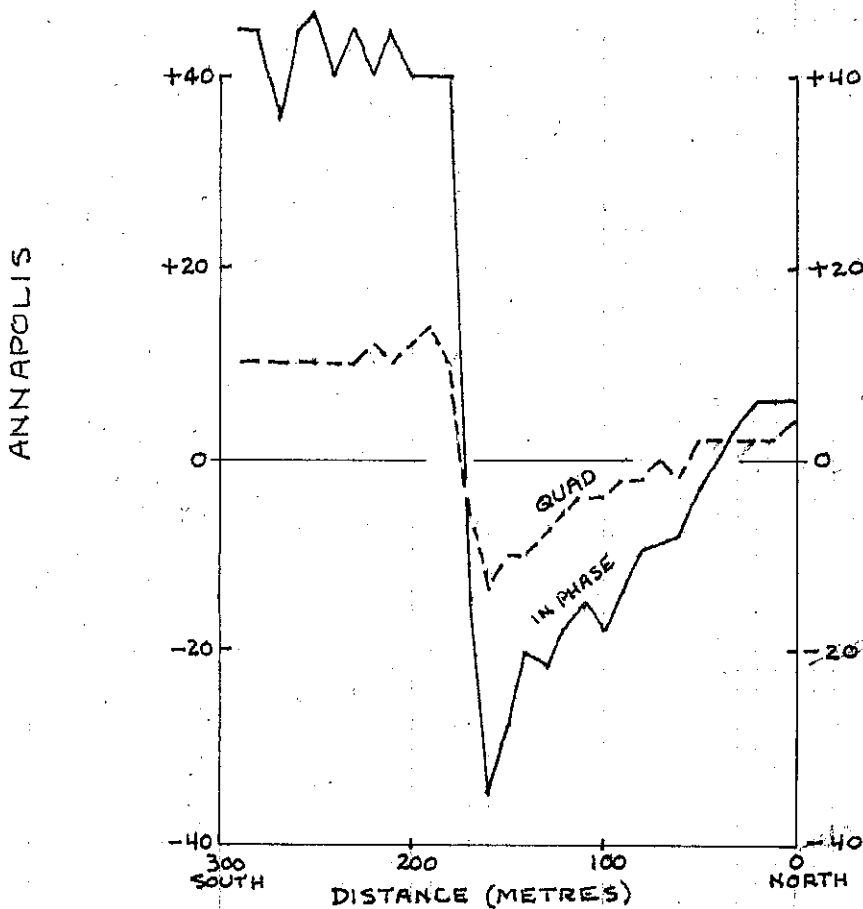
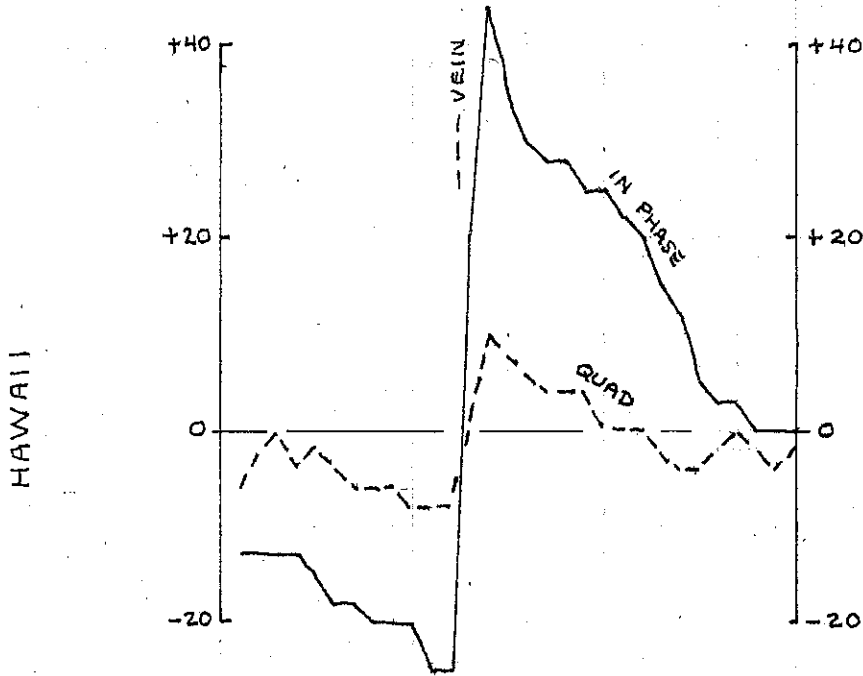
LINE X14



VLF-EM PROFILE
BAYONNE PROPERTY

FIGURE 9

LINE X15

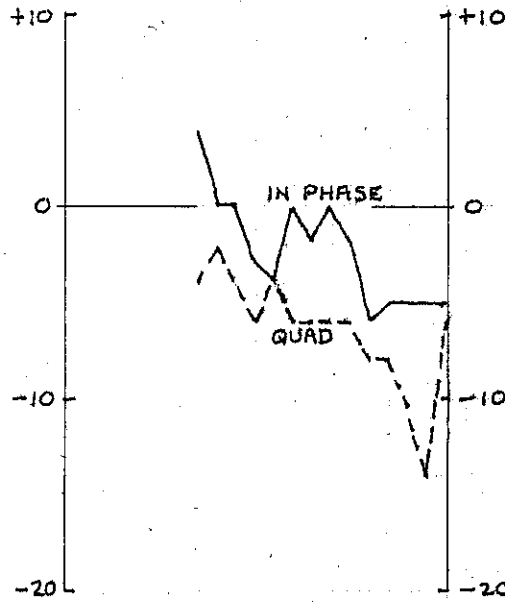


VLF-EM PROFILE
BAYONNE PROPERTY

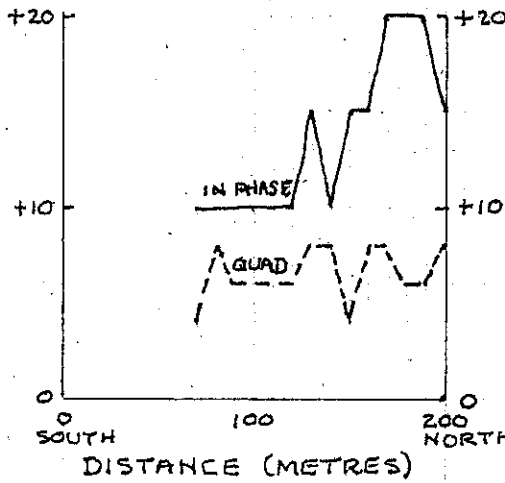
FIGURE 10

LINE X16

HAWAII



ANNAPOLIS

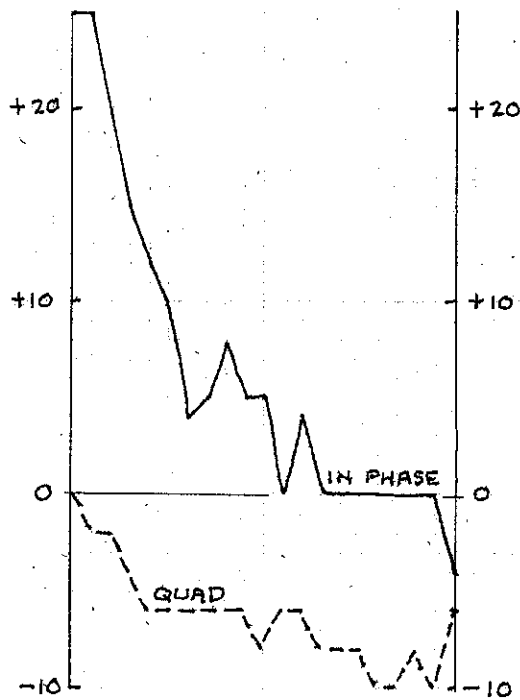


VLF-EM PROFILE
BAYONNE PROPERTY

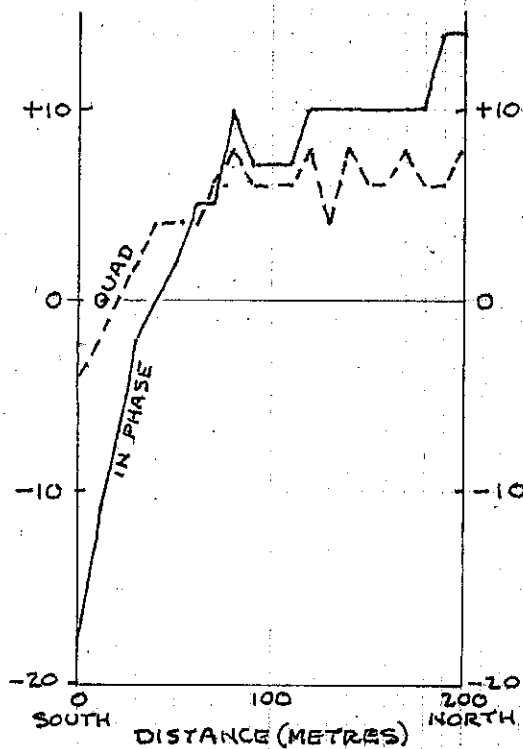
FIGURE 11

LINE X17

HAWAII



ANNAPOLIS

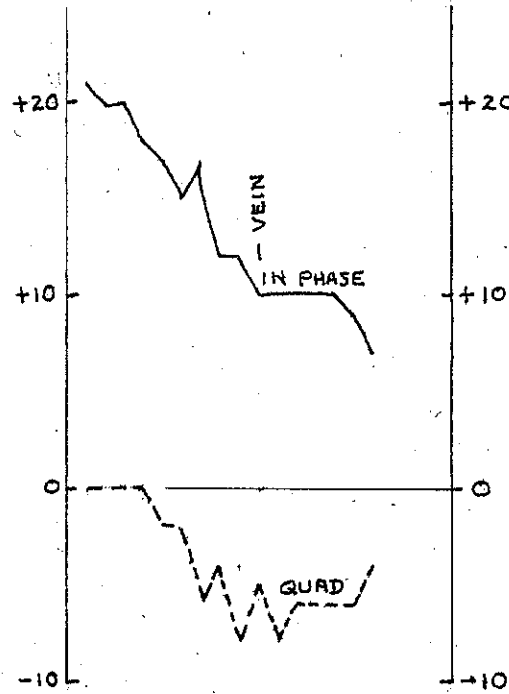


VLF-EM PROFILE
BAYONNE PROPERTY

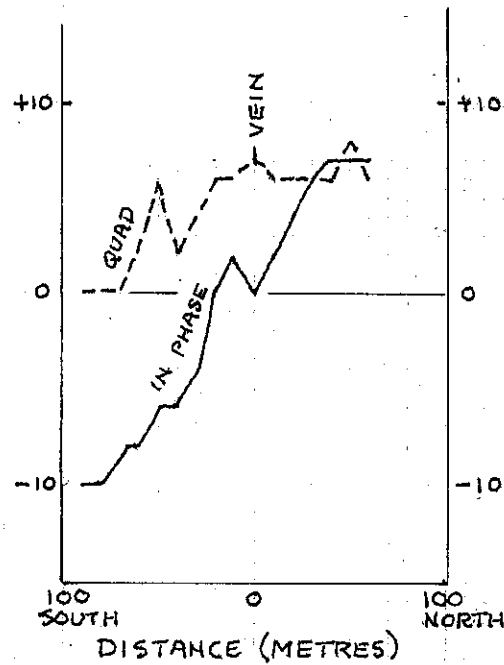
FIGURE 12

LINE X18

HAWAII



ANNAPOLIS



VLF-EM PROFILE
BAYONNE PROPERTY

FIGURE 13

REFERENCES

- Hitchins, A. (1987). Assessment Report on the Bayonne Claim Group. British Columbia Ministry of Mines, Energy and Petroleum Resources. Assessment Report for Goldrich Resources Inc.
- Rice, H.M.A. (1941). Nelson Map Area East Half. Geological Survey Canada. Memoir 228.
- Phendler, R. G. (1982) Report on the Bayonne Property. Private report for Goldrich Resources Inc.
- Wells, R.A. and OGrady, F. (1984). Exploration and Development Proposal Bayonne Mine Property. Private report for Goldrich Ressources Inc.

AFFIDAVIT OF EXPENSES

This will certify that VLF-EM surveying was carried out between August 10th and October 18th, 1993 on the Bayonne property in the Salmo area of the Nelson Mining Division to the value of the following:

Labour - 4 man days @ \$300/day	\$1200.00
8 man days @ \$200/day	1600.00
Pick-up rental 4 days @ \$60/day	240.00
Mileage - 940 km @ 0.20/km	188.00
VLF-EM16 rental	200.00
Meals & Lodging	310.00
Materials, flagging, etc.	30.00
Telephone	35.00
Report preparation	1150.00

Total	\$4,953.00
	=====

November 15, 1993



Stan A. Endersby P. Eng.

CERTIFICATE

I Stan A. Endersby, certify that:

- 1.) I am a graduate of the University of British Columbia in Chemical Engineering (BA.Sc. 1954). Also I have an M.Sc. in 1965.
- 2.) I am a member in good standing of the Association of Professional Engineers of B. C.
- 3.) This report is based on fieldwork carried out between August 10 and October 18th, 1993 on the Bayonne property. The work was supervised by myself and I was assisted by K. Bonde (Columbia Geophysics), D. Llewellyn, and D. Endersby.
- 4.) I have an interest in the claims.

November 15, 1993
White Rock, B. C.


Stan A. Endersby, P. Eng. (B.C.)