



GOLDEN GATE EXPLORATIONS LTD.

LAY GROUP

Whitehorse M.D., 105-K-2
132° 50' W., 62° 12' N.

GEOCHEMICAL RECONNAISSANCE

by

I. Borovic

P.H. SEVENSMA CONSULTANTS LTD.

July 3, 1969.

This report has been examined by
the Geological Evaluation Unit.
Approved as to technical worth by:

J. B. Craig
RESIDENT GEOLOGIST

Approved as to cost in the amount
of \$ 1625.00

R. J. Ruston
RESIDENT MINING ENGINEER

Accepted as representation work
under Section 53(4) Yukon Quartz
Mining Act.

[Signature]
COMMISSIONER OF YJK

TABLE OF CONTENTS

	<u>Page No.</u>
1. INTRODUCTION	1
2. PROPERTY, LOCATION, ACCESS	1 & 2
3. TOPOGRAPHY, DRAINAGE, FLORA	2
4. SAMPLING PROCEDURE	2 & 3
5. ANALYTICAL PROCEDURE	3
6. SURVEY RESULTS	4
7. PHOTOGEOLOGICAL STRUCTURAL INTERPRETATION	4
8. SUMMARY	4 & 5

ILLUSTRATIONS

Fig. 1 - Claim and Property Location Map - 1" = $\frac{1}{2}$ mile.

Fig. 2 - Geochemical Reconnaissance Survey - Sample Location No.
1" = 400'.

Fig. 3 - Geochemical Reconnaissance Survey - Zn. Plot - 1" = 400'.

Fig. 4 - " " " - Pb. Plot - 1" = 400'.

Fig. 5 - " " " - Cu. Plot - 1" = 400'.

Fig. 6 - Photogeological Structural Map - 1" = $\frac{1}{2}$ mile.

GOLDEN GATE EXPLORATIONS LTD.
LAY GROUP

Whitehorse M.D., 105-K-2
132° 50' W., 62° 12' N.

GEOCHEMICAL RECONNAISSANCE

1. INTRODUCTION

The work reported in this report was done in the field between June 5th and June 11th, 1969 and includes geochemical analyses made by Whitehorse Laboratory and a short discussion of the geology and geochemistry and of the photogeological structural map.

Work was initiated to evaluate at an early date the inconclusive results obtained by Cominco Ltd. during the 1967 field season.

2. PROPERTY, LOCATION, ACCESS

The property on which the geochemical survey was carried out consists of the following 67 claims:-

Lay 1 - 8 incl.

Lay 12 - 70 incl.

The attached geochemical maps show the specific area tested by this survey.

The claims are located about 23 air miles NW of Ross River and 125 air miles NE of Whitehorse.

Access is by float plane or helicopter. A road suitable for 4 wheel drive vehicles, passes near the property and may be utilized under favorable weather conditions later in the season.

The camp site is at an elevation of about 3,000' and maximum altitude in the immediate area is about 4,500' above sea level. (Fig. 1)

3. TOPOGRAPHY, DRAINAGE, FLORA

The area covered by this investigation is the lower part of the Anvil - Vangorda area and is situated north of the Pelly River and west of the Ross River.

Long narrow lakes elongated in an E-W direction, small gently sloping hills, and swampy valleys characterize the topography of the area. The lakes are inter-connected and water runs from the higher points to the lower through small short creeks. The gentle slopes make for a poor drainage pattern, and there is no strong migration of the ground water.

Permafrost occurs approximately a foot and a half under the muskeg.

Recent muskegs are widespread and occur in all poorly drained low areas.

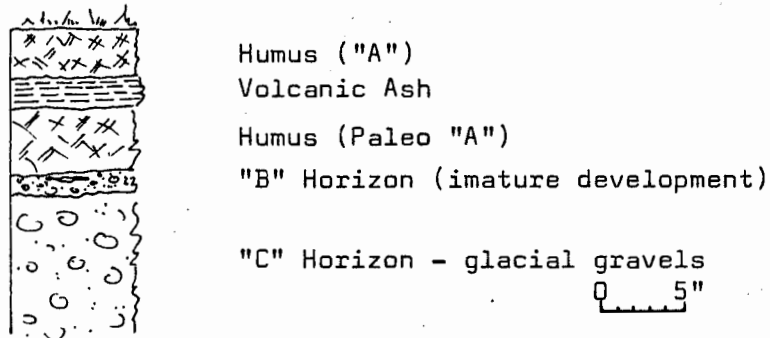
Thin forests cover most of the area. The principal tree is spruce which grows even in the swampy muskeg-covered valleys.

4. SAMPLING PROCEDURE

Each sample was taken from a shallow hole which was made with a miner's pick. Holes were 2' in diameter and not more than 18" deep.

Several soil horizons were recognized; humus, volcanic ash, buried humic layer, "B" soil horizon and the "C" horizon comprised of transported mineral soil.

The ideal section is sketched as follows:



The surficial humus horizon is black organic muck about 3" thick and is underlain by a light grey horizon of volcanic ash up to 2" thick. The older humus layer is found under the volcanic ash horizon and thickness is about 4".

Underlying the older humus layer is the "B" horizon from which the samples were taken. It is brown to light brown coloured silt or clay mixed with sand and sometimes, in deeper holes with pebbles.

After collection, the samples were partially dried in the field and submitted without further preparation.

Major topographic, drainage and vegetation features were noted and recorded.

5. ANALYTICAL PROCEDURE

The samples were sent to the Whitehorse Laboratory to be processed.

1. Weight of sample used was 1.00 gr.
2. Extraction was done with hot HClO_4 and HNO_3 .
3. An atomic absorption spectrophotometer was used.
4. Assaying was done on the -80 mesh fraction.

6. SURVEY RESULTS

Zinc, Lead and Copper

The zinc, lead and copper values show average background without any significant anomaly. No explanation of the Cominco lead anomaly in the same area is evident. (Figures 2,3,4 & 5)

The area from which check samples were taken is comprised of mud, muskeg and swamp.

Permafrost started just under the muskeg and humus horizon and special tools will be required to penetrate it.

Some improvement in conditions may be expected in the latter part of the season.

7. PHOTOGEOLOGICAL STRUCTURAL INTERPRETATION

This provided the structural pattern but the deep overburden which covers the area renders impossible an estimate of the actual rock types underlying the claims.

There are a few dykes N and NE from the campsite.

Stronger faults have an E-W direction. Several NW - SE faults are noted on the south bank of the largest lake and the SE part of the grid. (Fig. 6)

8. SUMMARY

The photogeological map shows favorable structural evidence. Geochemical results were not encouraging and gave only average values. Soil sampling would now appear of questionable value in the further exploration of this property.

9. RECOMMENDATION

On the basis of all work to date additional geochemical work can not be recommended. A gravity survey could be of value as known sulphide deposits in this belt have a well defined gravimetric expression. It is recommended however that regional geological studies be regarded as an effective guide to favorable areas within the Vangorda belt. The ground should be retained pending further study of the geological setting of the Lay Group, as all indications suggest that the favorable ore-bearing rock-assembly underlies at least a part of these claims.

Reference:

P.H. Sevensma - Evaluation Report on Golden Gate Explorations Ltd., Lay Group, February 21, 1969.

Respectfully submitted,

I. Borovic
I. Borovic, Geologist.

Endorsed:

P.H. Sevensma
P.H. Sevensma, Ph.D., P.Eng.

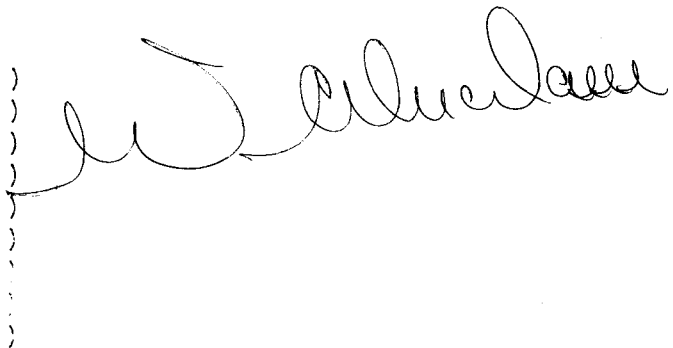
July 3, 1969.

CANADA) IN THE MATTER OF A GEOCHEMICAL SURVEY ON
)
YUKON TERRITORY) CERTAIN OF THE LAY GROUP MINERAL CLAIMS
)
TO WIT:) HELD BY GOLDEN GATE EXPLORATIONS LTD.

I, William J. Abraham
of, #714 West Hastings St. Vancouver 1, B.C.
HEREBY MAKE OATH AND SAY AS FOLLOWS:-

That attached hereto, this my Affidavit, marked Appendix "A" and "B" respectively is a statement of the costs incurred and a list of personnel employed in the performance of this work which I certify to be correct to the best of my knowledge and belief.

SWORN before me at the)
)
City of Vancouver,)
)
Province of British Columbia,)
)
this 6th day of August.)
)
A.D. 1969.)



H.S. Arthur

NOTARY PUBLIC IN AND FOR
THE YUKON TERRITORY

APPENDIX "A"

Statement of Costs Incurred on
Geochemical Survey of Lay Group Mineral Claims
June 1st to July 3rd, 1969.

<u>Name</u>	<u>Particulars</u>	<u>Chq. #</u>	<u>Amount</u>
Terrikon Enterprises Ltd.	Aircraft Charter & Expediting	2	\$ 175.00 ✓
Whitehorse Assay Office	Assay Charges	4	144.00 ✓
Trans North Turbo Air Ltd.	Aircraft Charter	5	253.50 ✓
P.H. Sevensma Consultants Ltd.	Services & Expenses	6	850.00 ✓
Terrikon Enterprises Ltd.	Aircraft Charter, Expediting and casual labour	8	315.00 ✓
P.H. Sevensma Consultants Ltd.	Services & Expenses	9	697.00 ✓
Taylor & Drury Ltd.	Groceries	10	114.08 ✓
			<u>\$2,548.58</u> ✓

APPENDIX "B"

Statement of Firms & Personnel Employed on
Geochemical Survey of Lay Group Mineral Claims
June 1st to July 3rd, 1969.

Consulting Services,
Supervision and Conduct
of Sampling Program.

P.H. Sevensma Consultants Ltd.,
715 - 850 West Hastings St.,
Vancouver 1, B.C.

I. Borovic, Geologist.
H.S. Aikins, Technician.
G. Norgard, Student Assistant.
A. Oliveric, Draftswoman.

Expediting and Transportation
Services.

Terrikon Enterprises Ltd.,
P.O. Box 2264,
Whitehorse, Yukon Territory.

Helicopter Charter.

Trans North Turbo Air Ltd.,
P.O. Box 1979,
Whitehorse, Yukon Territory.
C. Armstrong, Pilot.

Assay Services.

Whitehorse Assay Office,
P.O. Box 346,
Whitehorse, Yukon Territory.
G. Spalding, Assays.

CERTIFICATE

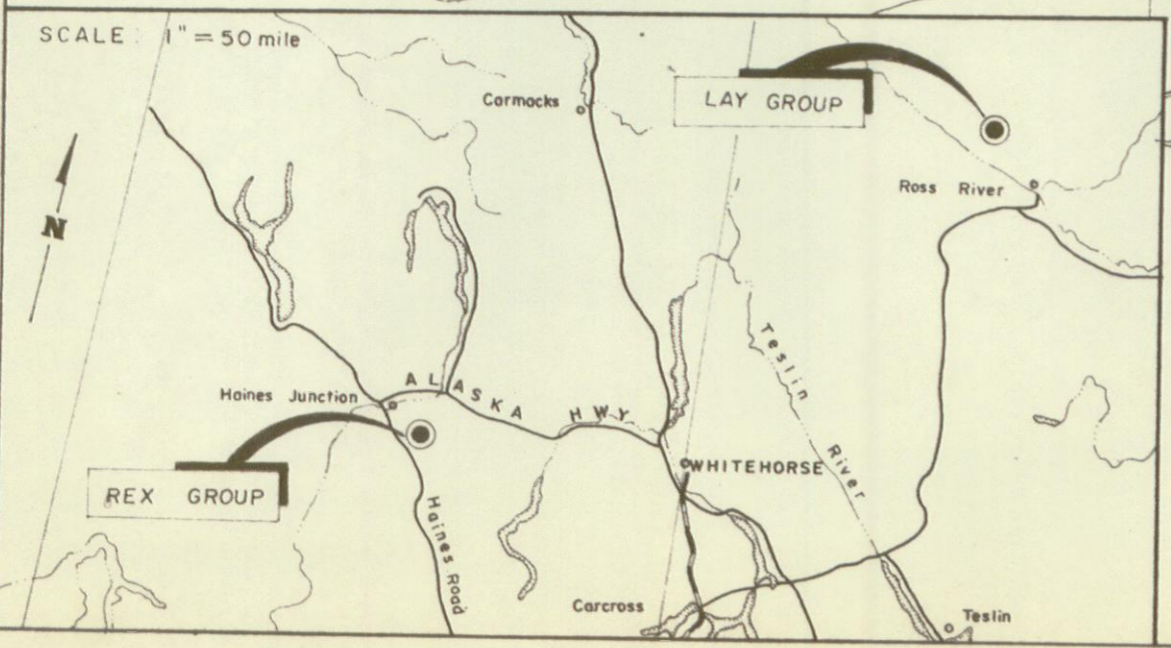
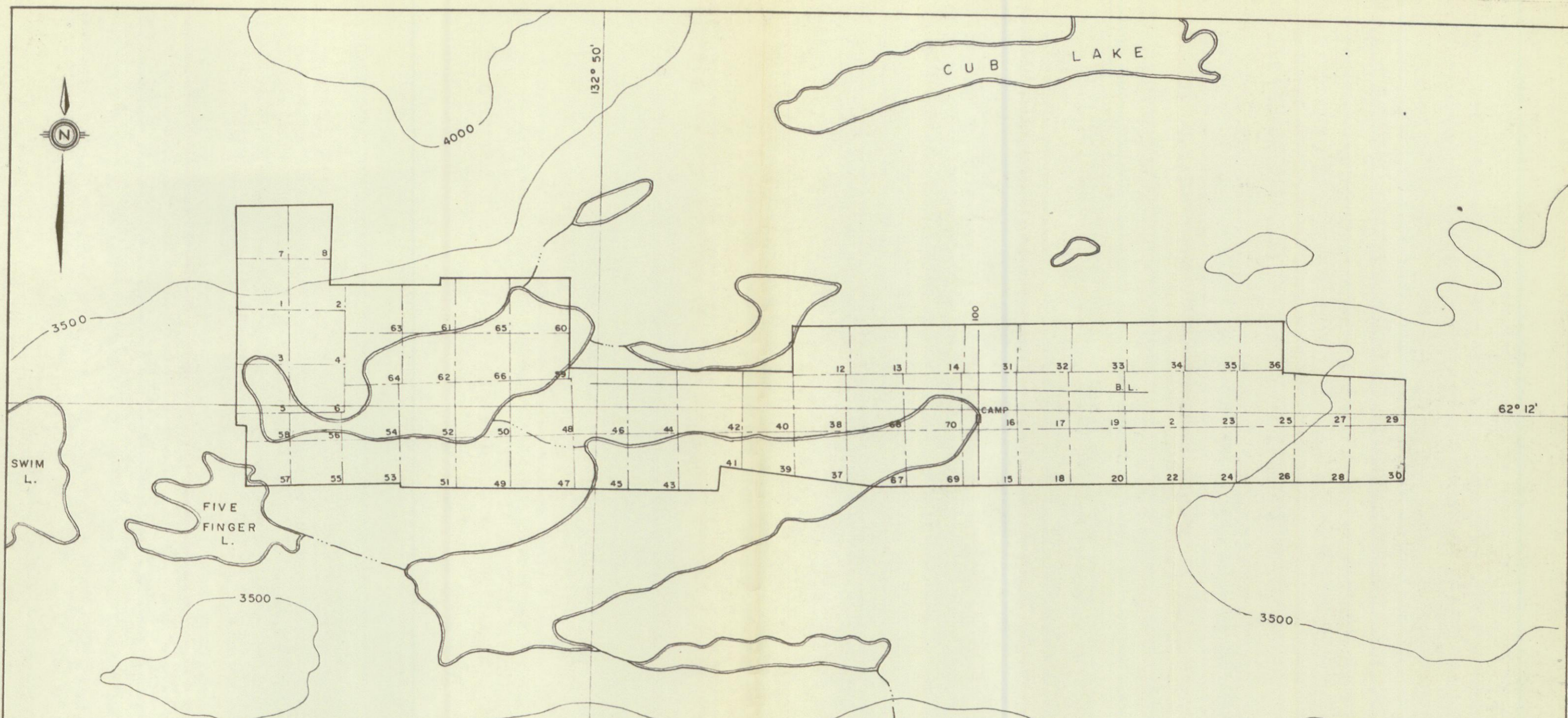
I, PIETER H. SEVENSMA, of 908, 1280 Haro Street, in the City of Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with a business address at 715 - 850 West Hastings Street, in the City of Vancouver, in the Province of British Columbia.
2. THAT I am a graduate of the University of Geneva, Switzerland (Physics and Chemistry, 1937; Geology and Mineralogy, 1937) where I obtained my Ph.D. in Geological and Mineralogical Sciences in 1941.
3. THAT I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers of the Province of British Columbia and of the Association of Professional Engineers of Yukon Territory.
4. THAT I have practiced my profession as a geologist for the past 30 years.
5. THAT I have, on a number of occasions, traversed the area covered by the Lay Group while constructing a road to adjacent claims, but that due to the nature of the overburden no outcrops could be examined.
6. THAT geochemical reconnaissance discussed in my report of July 3, 1969 was carried out by Mr. I. Borovic, geologist on my staff.
7. THAT I have no direct or indirect interest in any of the securities or properties of Golden Gate Explorations Ltd. (N.P.L.), nor do I expect to receive or acquire any.

Dated this 3rd day of July, 1969.

A handwritten signature in black ink, appearing to read 'P.H. Sevensma', with a long horizontal flourish extending to the right.

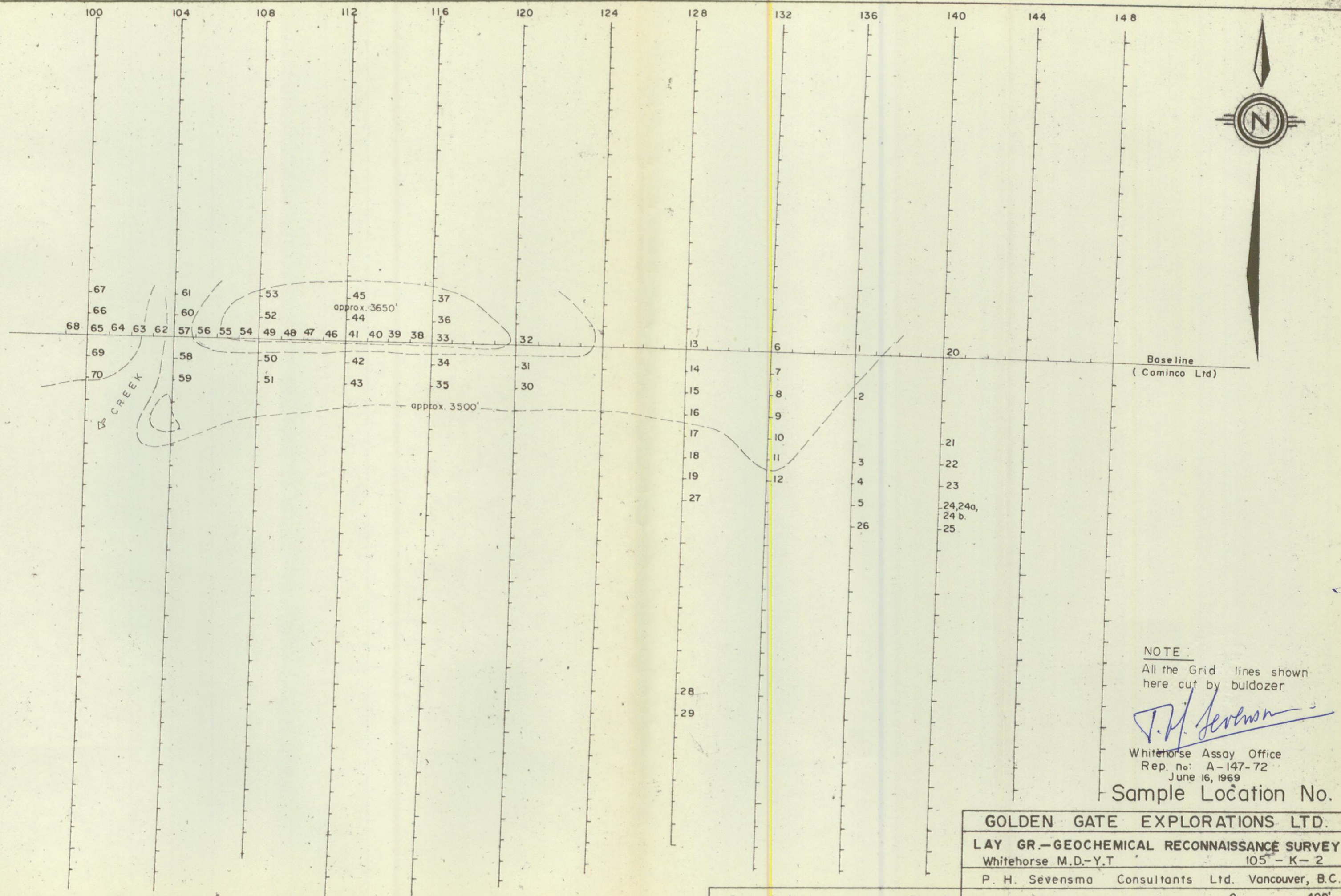
P.H. Sevensma, Ph.D., P. Eng.



P. H. Sevensma

GOLDEN GATE EXPLORATIONS LTD.	
CLAIM and PROPERTY LOCATION MAP	
Whitehorse M.D.-Y.T.	105-K-2
P. H. Sevensma Consultants Ltd. Vancouver, B.C.	
February	Scale: 1" = 1/2 mile

Dwg. No. Fig: 1



NOTE:
All the Grid lines shown here cut by bulldozer

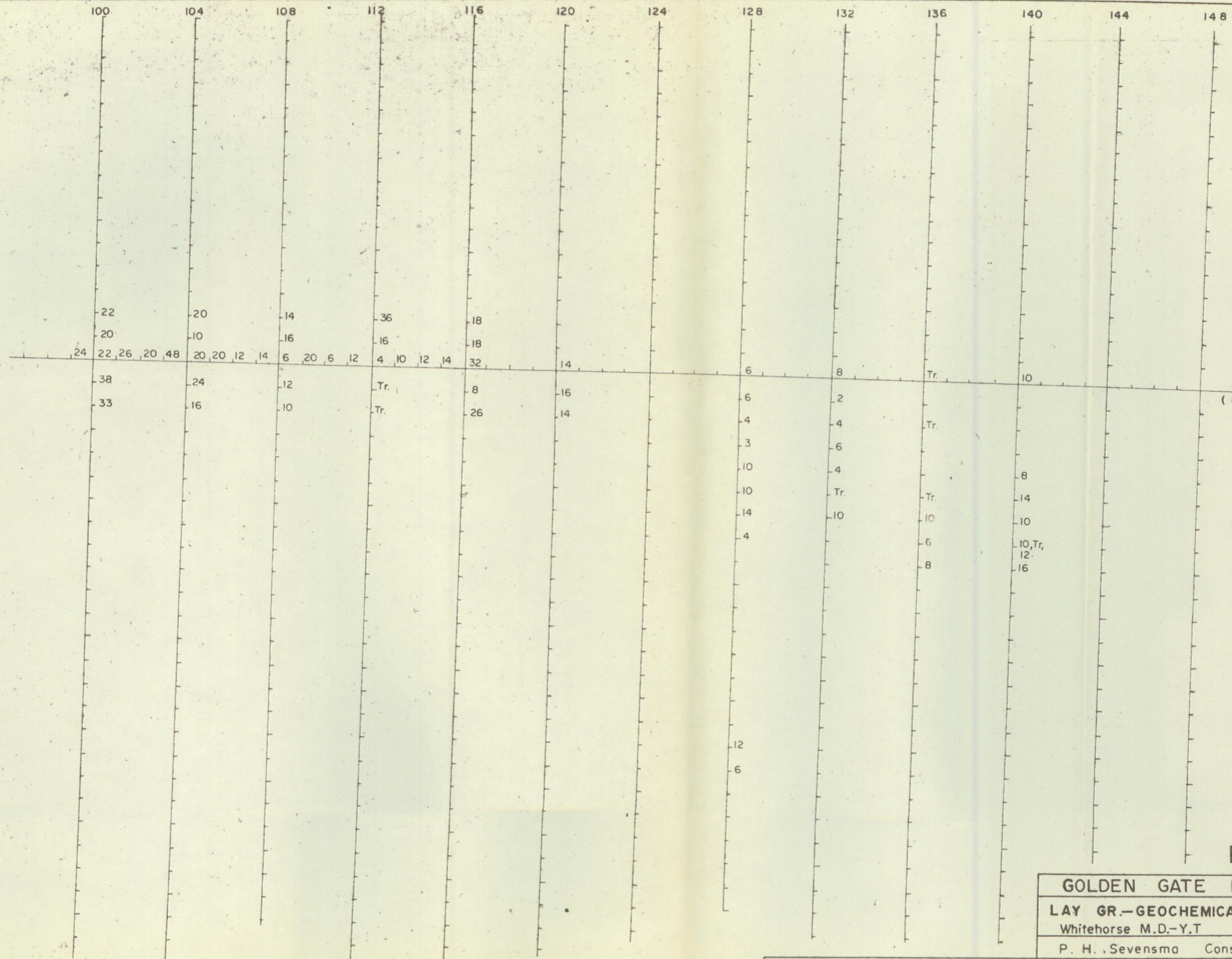
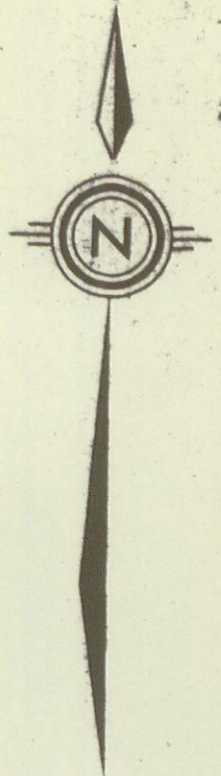
J.M. Severson

Whitehorse Assay Office
Rep. no: A-147-72
June 16, 1969

Sample Location No.

GOLDEN GATE EXPLORATIONS LTD.
LAY GR.—GEOCHEMICAL RECONNAISSANCE SURVEY
Whitehorse M.D.-Y.T. 105 - K-2
P. H. Severson Consultants Ltd. Vancouver, B.C.

Dwg. No. Fig: 2 June 1969, Scale: 0 400'



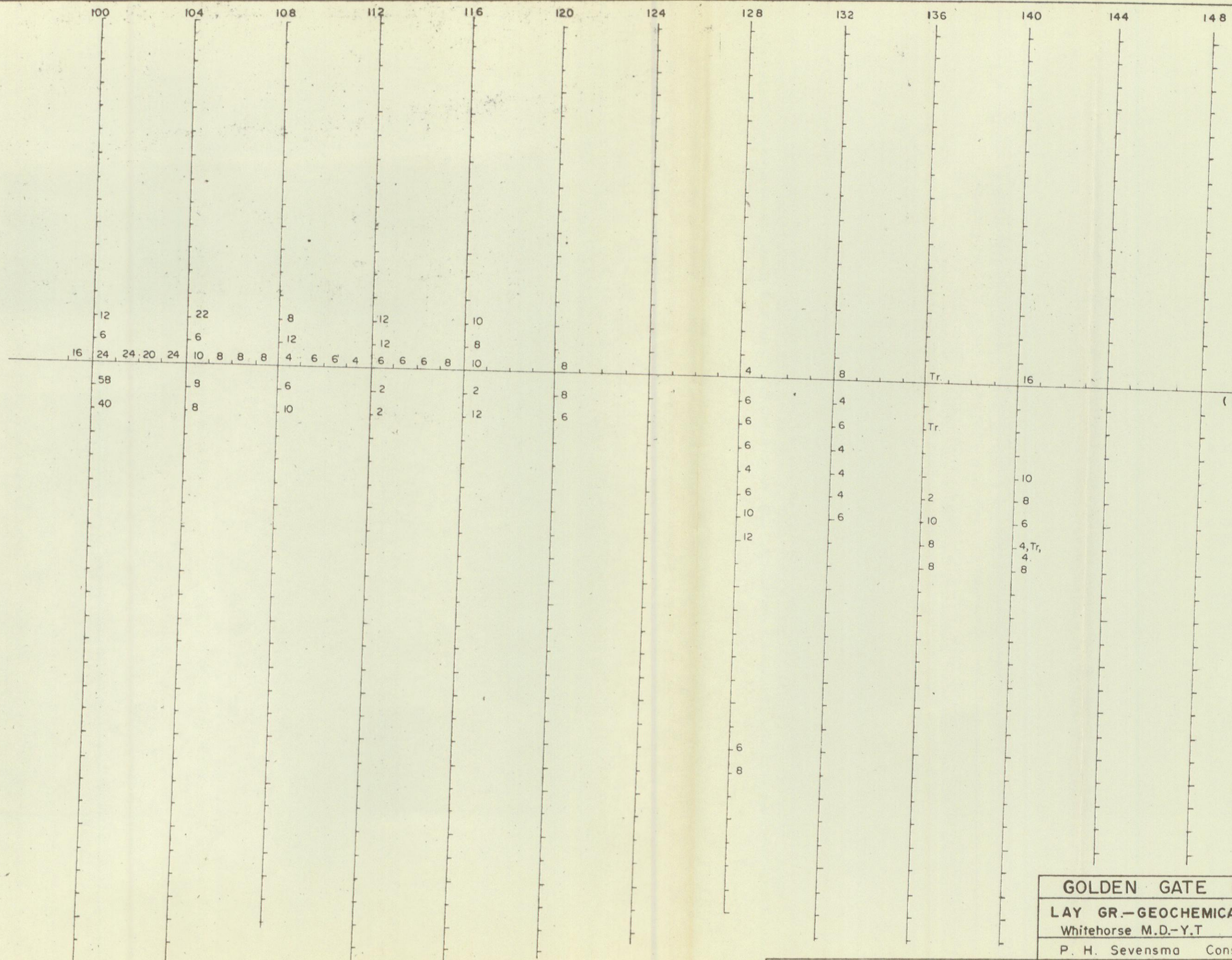
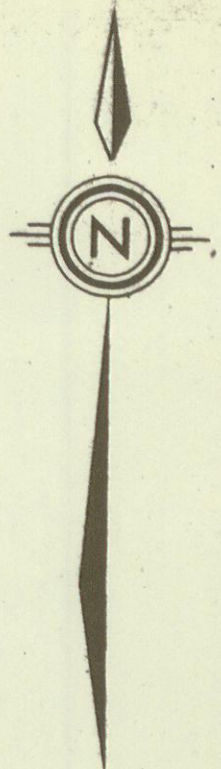
Baseline
(Cominco Ltd)

P. H. Sevensma

Whitehorse Assay Office
Report No. A-147-72
June 16, 1969.

Pb. Plot

GOLDEN GATE EXPLORATIONS LTD.	
LAY GR.—GEOCHEMICAL RECONNAISSANCE SURVEY	
Whitehorse M.D.-Y.T.	105 - K - 2
P. H. Sevensma Consultants Ltd. Vancouver, B.C.	
Dwg. No.	Fig: 4
June 1969,	Scale: 0 400'



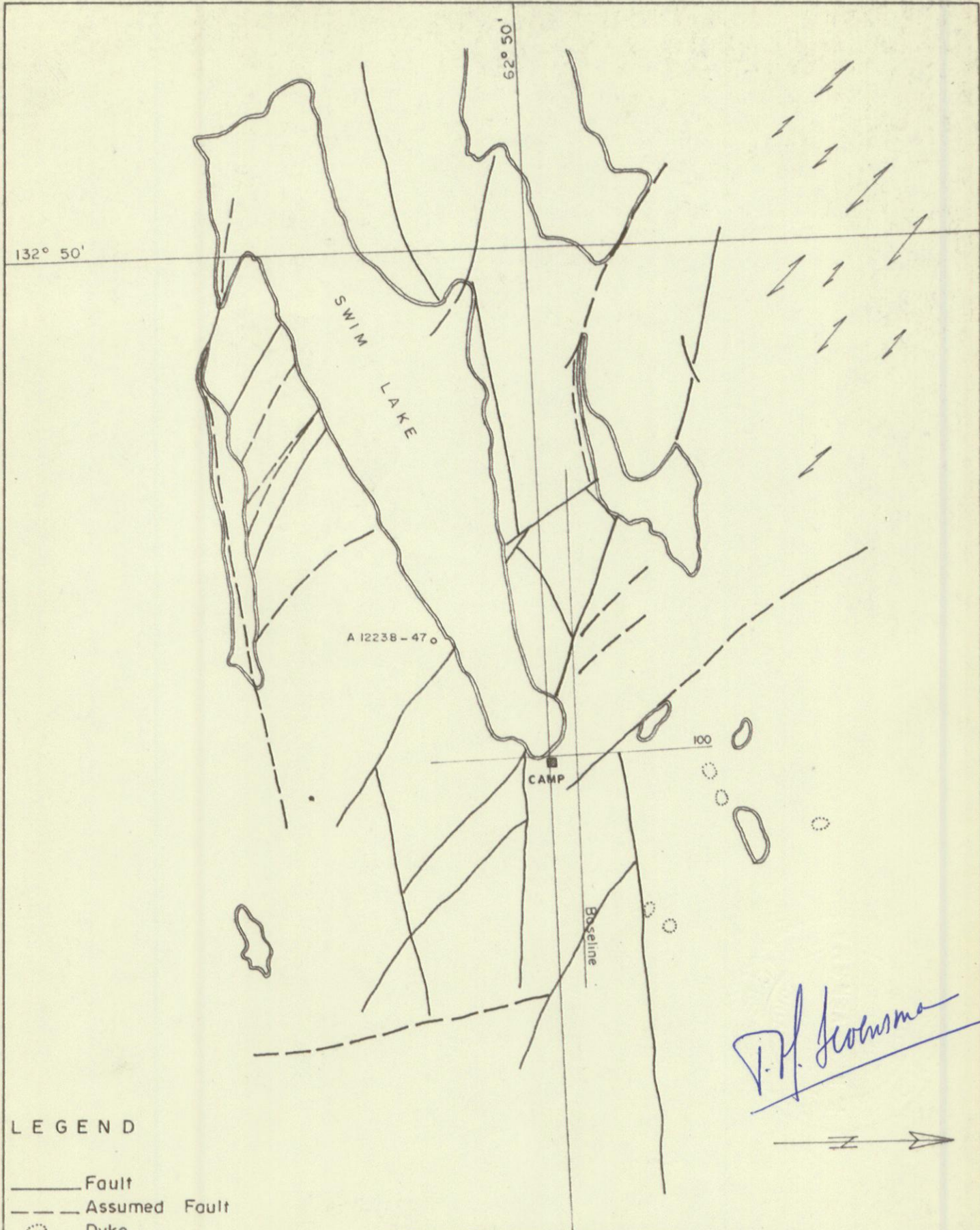
Baseline
(Cominco Ltd)

P. H. Sevensma

Whitehorse Assay Office
Report No. A-147-72
June 16, 1969.

Cu. Plot

GOLDEN GATE EXPLORATIONS LTD.	
LAY GR.—GEOCHEMICAL RECONNAISSANCE SURVEY	
Whitehorse M.D.-Y.T.	105 - K - 2
P. H. Sevensma Consultants Ltd. Vancouver, B.C.	
Dwg. No.	Fig. 5
June 1969,	Scale: 0 400'



LEGEND

- Fault
- - - Assumed Fault
- Dyke
- ↗ Foliation
- A12238-47 Airphoto centre

GOLDEN GATE EXPLORATIONS LTD.	
PHOTOGEOLOGICAL STRUCTURAL MAP	
Whitehorse M.D.-Y.T.	105-K-2
P. H. Sevensma Consultants Ltd. Vancouver, B.C.	
Dwg. No.:	Fig: 6
June 1969,	Scale: 0 <u>aprox.</u> 1/2 mile