

4252

ELECTROMAGNETIC SURVEY
ON THE 92L/14E
Q C GROUP - SEYMOUR INLET
VANCOUVER M.D.

51-127-NE

9-9-72 : 19-9-72

For:

Q.C. EXPLORATIONS LTD. (N.P.L.)

408 - 470 Granville Street
Vancouver, B.C.

<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 4252 MAP</p>

By:

ALLEN GEOLOGICAL ENGINEERING LTD.

601 - 325 Howe Street
Vancouver, B.C.

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ELECTROMAGNETIC VLF SURVEY

Q.C. 1-4 CLAIMS, SEYMOUR INLET

VANCOUVER M.D. B.C.

INTRODUCTION

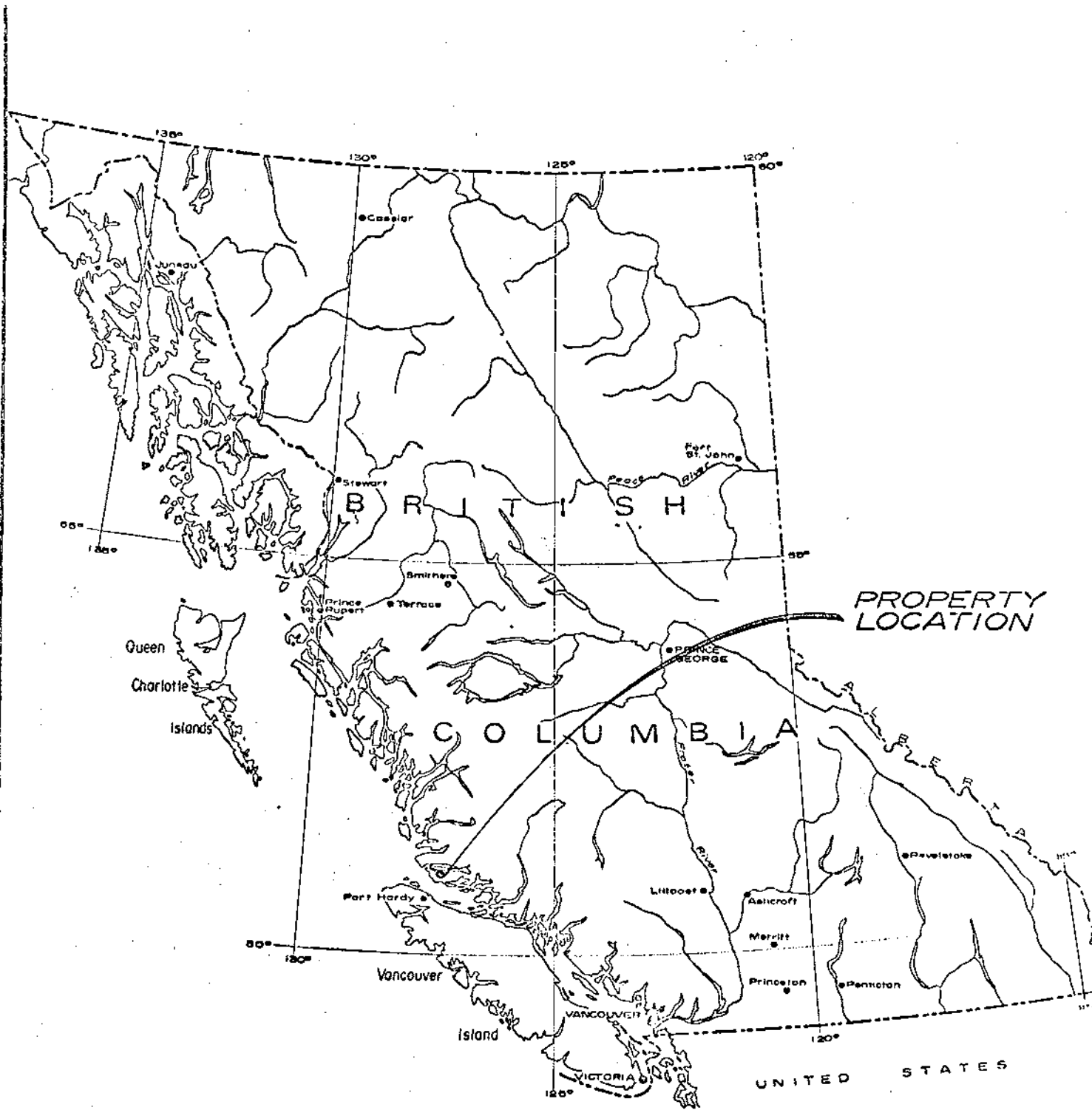
An electromagnetic survey, using V.L.F. equipment was conducted over a 400 by 200 foot grid on the Q.C. 1-4 mineral claims, Seymour Inlet, from September 9, to 19, 1972

The field crew consisted of J. Hunyadi and Frank Cote. The writer made two prior examinations of the property, planned and supervised the work, then spent September 19 on the property, to interpret the results.

A Sintrex SE-80 V.L.F. instrument was used, and the transmitter station was Jim Creek, Washington, U.S.A.

The purpose of the survey was to detect mineralized zones similar to the known showings on the property. In addition, to detect any extensions of same, as well as structural features such as shears, faults and contacts which might control the localization of mineral deposits.

The object of this report is to describe the property briefly since geological reports are available, but primarily to interpret the results of the electromagnetic survey and recommend a follow-up exploration programme



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **4252** MAP **#1**

Q.C. EXPLORATIONS LTD. (NPL)
 LOCATION MAP

SCALE: 1" = 136 Mls.

Drawn by	Date	ALLEN GEOLOGICAL ENGINEERING LTD.
Checked by	Nov. 1972	
	Drq no. Q-1	

LOCATION AND ACCESSIBILITY

The property is located on the coast of British Columbia. Two salt water lagoons on the south side of Seymour Inlet, named McKinnon and Nenahlmai, meet to form a triangle land mass bounded on the east by Lee Lake.

Forty mineral claims, located thereon, make up the Q.C. Explorations holdings.

Geographic location is $51^{\circ}-00'$ north latitude and $127^{\circ}-12'$ west longitude.

Access is by aircraft or boat from Port Hardy.

TOPOGRAPHY

The claims area is fairly rugged and heavily timbered. Logging near the shoreline has cleared small patches of timber at several locations.

Steep hills are separated by narrow and deeply incised creek valleys. Lee Lake is on the east boundary of the property. To the west the salt water lagoons meet to form a triangular shaped area.

The main workings are about 4,000 feet by trail from the beach at an elevation of 350 feet above sea level.

PROPERTY

Q.C. Explorations Ltd. (N.P.L.) holds the following mineral claims by location.

QC 1-18	Record Numbers	17083 - 17100
QC 19-40	" "	21783 - 21804

The lines and posts of the key claims have been examined by the writer, and are in accordance with the requirements of the British Columbia Mineral Act.

GEOLOGY

The QC Property overlies the contact between a roof pendant composed of phyllite, schist, argillite and slate and granodiorite of the Coast Range batholith.

Near this contact, in the metamorphosed rocks, two shear zones have been exposed. These contain quartz along with chalcopyrite, bornite, galena, sphalerite, pyrrhotite, pyrite and magnetite in lenses, disseminations and fractures within the quartz.

The most northerly showing has been explored by a trench 60 feet long and a winze 40 feet deep. Two shipments of sorted material were made from this showing in 1941 and 1949.

ELECTROMAGNETIC SURVEY

Over a surveyed grid on the key claims (Q C 1-4) which include the main showings and the contact between the Coast intrusives and older metamorphic rocks of the roof pendant, a V.L.F. electromagnetic survey was conducted September 9 to 19, 1972.

A 400 by 200 foot grid was surveyed by chain and compass. Lines were cut, blazed and flagged. Stations were marked by grid number on flagging tape. The lines are directed north 30 degrees east, true.

Transmitter station Jim Creek, Washington, U.S.A., 18.5k Hz, 250 KW, 48N12, 121W 55 provided clear V.L.F. reception. An SE - 80 Scopas instrument was used to detect vertical component and tilt angles. All data was recorded at each station in a field book, and results were mapped and interpreted by the writer in Vancouver.

Field operator was J. Hunyadi, assisted by F. Cote, both of Vancouver. The writer spent one day on the property.

SURVEY RESULTS

The vertical component and tilt angles are shown on map Q - 2 in the pocket of this report.

The trend of conductor zones is close to true east-west.

Tilt Angle Conductors

1. Strong, from 0-28N to 12W-20N, weakening to 28W-6N.
2. From 16W-18N to 20W-16N, a probable "split" from #1.
3. Strong, from 0-22N to 12W-14N, with a probable extension from 20W-6N to 0-29W.
4. Strong, from 12W-8N to 16W-6N, close to main showings.

Vertical Component Conductor

From 0-12N to 28W-2N, coinciding with conductor #4.
near the main showings.

The results are sufficiently well defined to warrant additional investigations by geophysical and geochemical techniques.

SUMMARY AND CONCLUSIONS

The Q C property is located on Seymour Inlet, east of Port Hardy on the British Columbia coast.

Two shear zones in a roof pendant lying within Coast Range granodiorite contain quartz and sulphide minerals.

Exploratory work some years ago on one of the mineralized zones resulted in shipments of good grade material to the Tacoma smelter. Only very limited exploratory work has been carried out elsewhere on the 40 claims.

A V.L.F. electromagnetic survey over the Q C 1-4 claims and main showings resulted in detecting four east-west conductor zones.

It is herewith concluded that the survey results provide sufficient data upon which to plan an expanded exploration programme.

RECOMMENDATIONS

It is herewith recommended that the following field programme be conducted over the Q C 1-40 mineral claims, Seymour Inlet, B.C.

1. Establish a camp and cut trails to provide access to key locations of the property,

Estimated costs

\$ 1,500.00

7.

	<u>Estimated Costs</u>
2. Establish a surveyed grid over as much of the property as practicable. Over 25 claims, survey the grid 400 feet by 100 feet, tied to two base lines,	\$ 7,500.00
3. Conduct a geochemical survey over the grid area,	3,000.00
4. Transportation, handling and assaying an estimated 1,600 samples,	2,000.00
5. Geological mapping over selected parts of the grid area,	2,000.00
6. Diamond drilling with EX equipment,	5,000.00
7. Office overhead and supervision,	1,000.00
8. Contingencies,	3,000.00
	<hr/>
Estimated total costs	\$25,000.00

Depending upon weather conditions, and results obtained as the work progresses, the programme should, if carried to completion, require no more than four months field work.

Respectfully submitted,

ALLEN GEOLOGICAL ENGINEERING LTD.

Per Alfred R. Allen P. Eng.
Alfred R. Allen

Vancouver, B.C.

November 30, 1972.

REFERENCES

Geological Survey of Canada, Map 92 A, 1913

British Columbia Minister of Mines, Annual Report 1949, p A218

Baissoneault, John, Report on Q.C. Property, July 12, 1971.

Allen, Alfred R., The Holdings of Q.C. Explorations in
British Columbia, November 7, 1972.

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FIELD CREW

VLF ELECTROMAGNETIC SURVEY AND LINE CUTTING

QC 1-40 CLAIMS

VANCOUVER M.D.

9-9-72 : 20-9-72

EXPENDITURES

Crew

A.R. Allen, Engineer, Sept. 12, 15, 19, Nov. 8, 13, 19, 21, 25	\$1,355.00
J. Hunyadi, Operator, Sept. 9-20,	1,100.00
F. Cote, Axeman, Sept. 9-19,	556.00

Expenses

PWA, Air fares	168.00
Air Charters	364.50
Meals	63.10
Instrument Rental	225.00
Camp supplies and food	180.68
Office, telephone, reports and maps	126.50
	<u>5,138.78</u>

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 27
day of December, 1972, A.D.

Alfred S. Allen

S. Giannotto
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder

FIELD CREW

VLF ELECTROMAGNETIC SURVEY AND LINE CUTTING

QC 1-40 CLAIMS

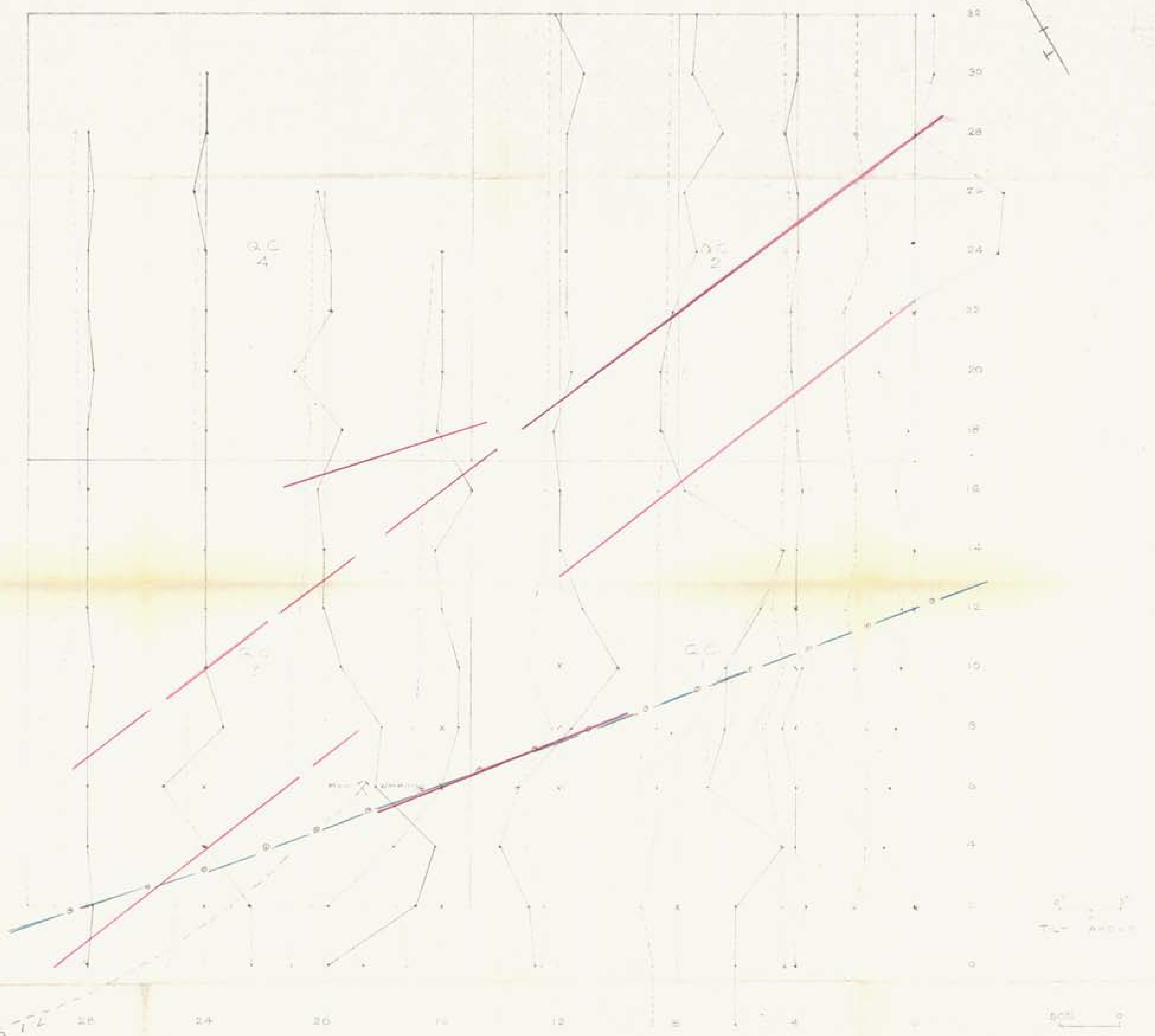
VANCOUVER M.D.

9-9-72 : 20-9-72

Alfred R. Allen, Engineer, Vancouver, B.C.

J. Hunyadi, Operator " "

F. Cote, Assistant, " "



4252 M-2

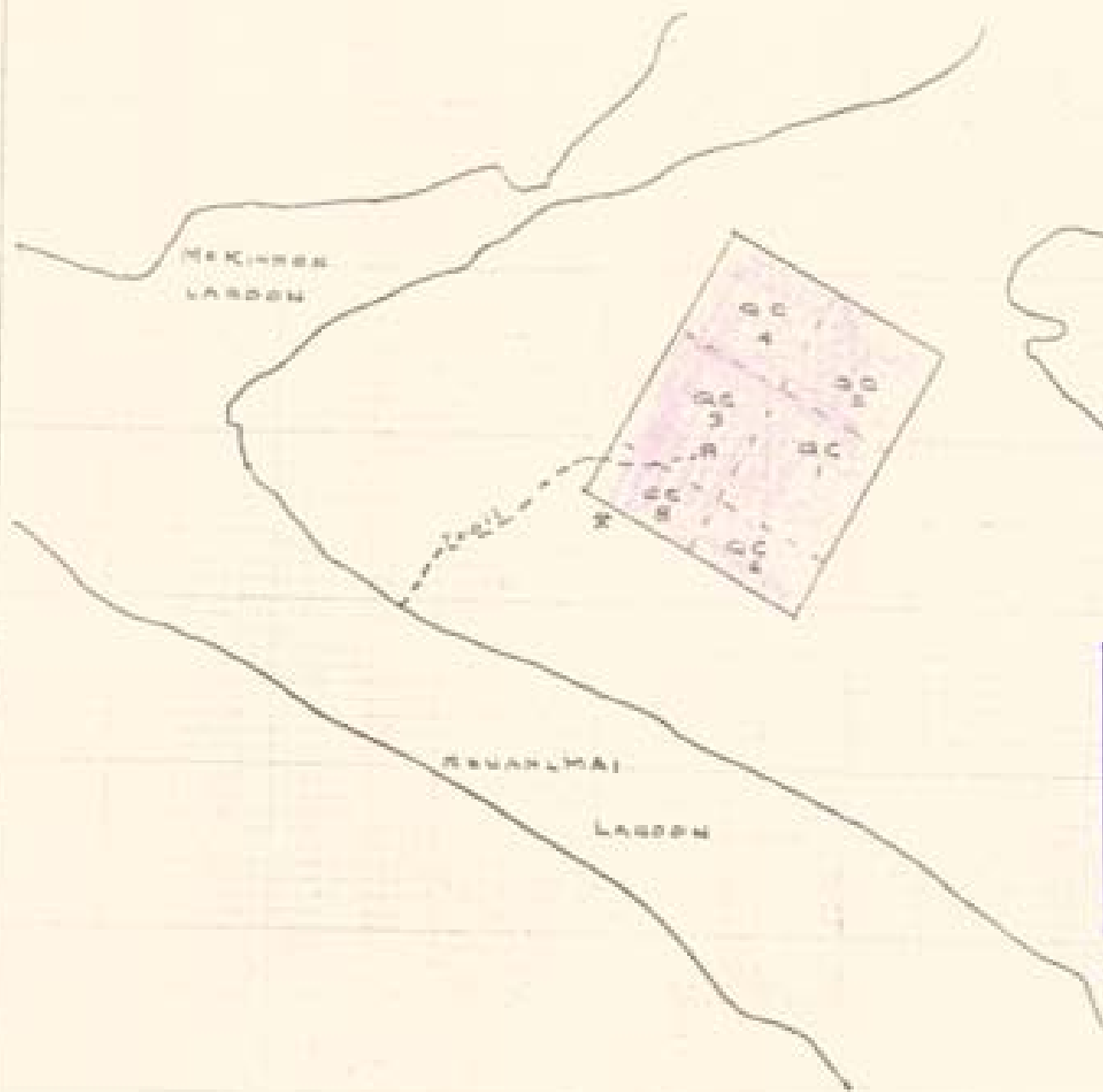
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LEGEND

- TILT ANGLE COMPONENT
- VERTICAL COMPONENT
- TILT ANGLE AXIS, POSITIVE
- TILT ANGLE AXIS, INDICATED
- VERTICAL COMPONENT AXIS

0 100 200 300 400 500 600
SCALE FT.

Q.C. EXPLORATIONS LTD. INC.
Q.C. 1-4
V.L.F. ELECTROMAGNETIC SURVEY
SEYMOUR INLET V.I.
No. : Q-2 ALLEN GEOLOGICAL ENGINEERING
DATE: Nov 1972 PER: *Opferd* PERS



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 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4252 MAP #3

GC EXPLORATIONS LTD CHFD
SEYMOUR INL
LOCATION MAP
EM SURVEY AREA
Scale 1" = 2000' 1/11/73 <i>Blair Allen</i>