

84-1240-13228

GEOLOGICAL AND GEOCHEMICAL
REPORT ON THE
GIO 5 MINERAL CLAIM

for
Bellabon Resources Corp.
Owner-Operator

NTS 93L/10E
Omineca Mining Division

Latitude $54^{\circ}36'N$

Longitude $126^{\circ}42'W$

December 13, 1984

Robert Holland, B.Sc.
Holland Geoservices Ltd.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,228

12/85
13228



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) <i>Geological - Geochemical</i>	TOTAL COST <i>2458.97</i>
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AUTHOR(S) *R. Holland* SIGNATURE(S) *R. Holland*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED *May 24, 1984* YEAR OF WORK *1984*

PROPERTY NAME(S) *Sio 5*

COMMODITIES PRESENT

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION *Omineca* NTS *93E/10E*

LATITUDE *54° 36' N* LONGITUDE *126° 42' W*

NAMES AND NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Sio 5 (20 units)

OWNER(S)
(1) *Bellabon Resources Corp.* (2)

MAILING ADDRESS
*28-777 Burrard St.
Vancouver, B.C. V6Z 1X7*

OPERATOR(S) (that is, Company paying for the work)
(1) *Same as above* (2)

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):
*Lower Jurassic Hazelton Group tuffs intruded by
dykes and stocks of lower Cretaceous Bulkley intrusions.*

REFERENCES TO PREVIOUS WORK *none*

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS		COST APPORTIONED
GEOLOGICAL (scale, area) Ground Photo	2,500,000 sq. m.	610.5		500.00
GEOPHYSICAL (line-kilometres) Ground Magnetic Electromagnetic Induced Polarization Radiometric Seismic Other Airborne				
GEOCHEMICAL (number of samples analysed for) Soil Silt Rock Other	124 for Cu, Zn, Pb, Ag, As	610.5		458.97
DRILLING (total metres; number of holes, size) Core Non-core				
RELATED TECHNICAL Sampling/assaying Petrographic Mineralogic Metallurgic				
PROSPECTING (scale, area)				
PREPARATORY/PHYSICAL Legal surveys (scale, area) Topographic (scale, area) Photogrammetric (scale, area) Line/grid (kilometres) Road, local access (kilometres) Trench (metres) Underground (metres)				
		TOTAL COST		2458.97

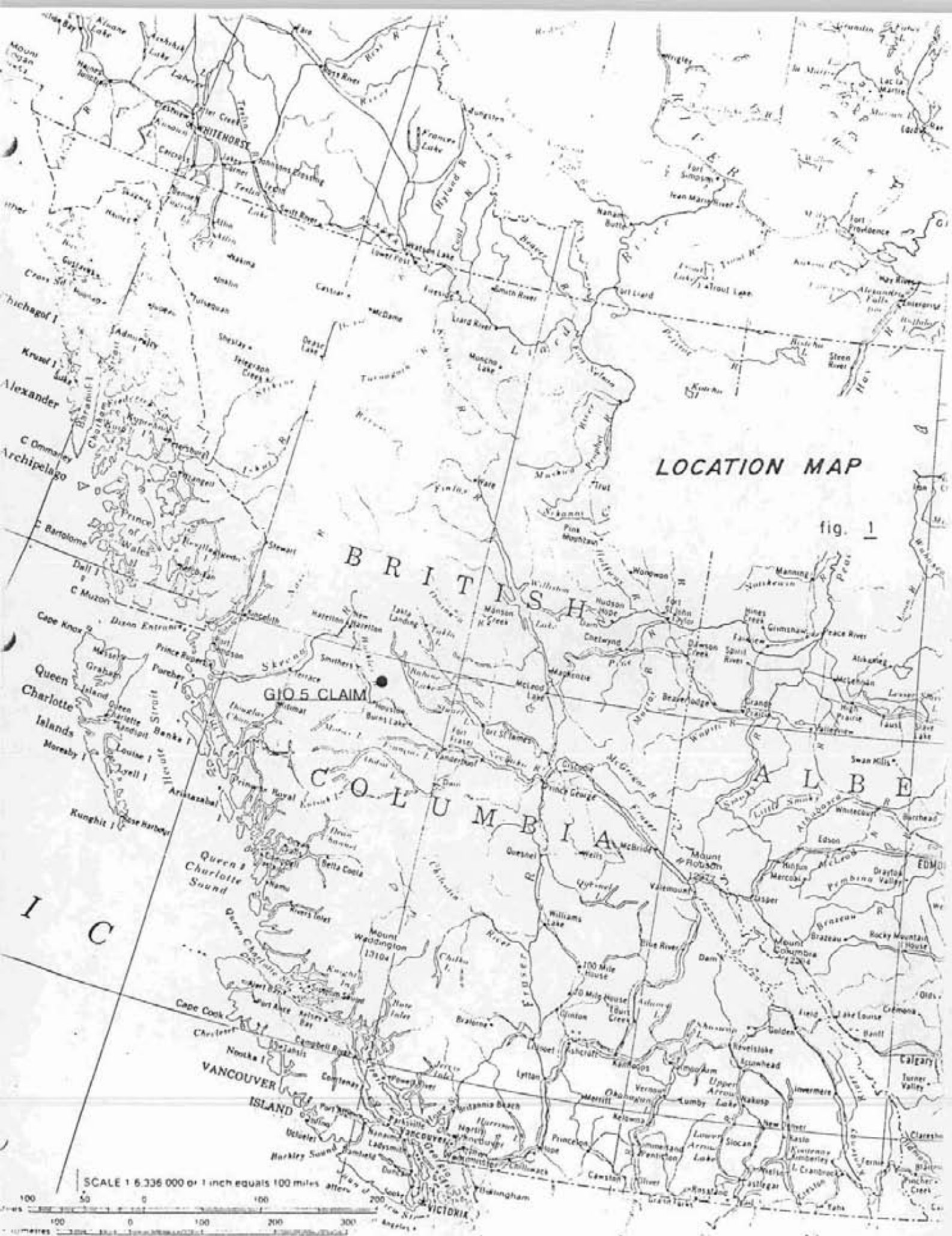
FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

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LOCATION MAP

fig. 1

GIO 5 CLAIM

SCALE 1:6,336,000 or 1 inch equals 100 miles
 100 50 0 100 200 300
 metres

SUMMARY AND CONCLUSIONS

The Gio 5 mineral claim, owned by Bellabon Resources Corp., lies on the northern flank of Grouse Mountain, adjoining, to the northeast, the Chance silver-copper-gold property currently being worked by Adriatic Resources Corp. It also lies just north of the Copperhill zinc-copper-silver prospect being developed by Ramm Ventures Ltd. and Teck Corp. Mineral reserves of 1,080,000 tonnes of low grade material have been outlined thus far on the Copperhill property, and current work indicates a good potential to substantially increase these reserves. Mineralization is widespread in the Grouse Mountain area and is spatially related to numerous intrusive dykes and stocks. Current work suggests a large scale hydrothermal system for the region, probably emanating from a large intrusive body at depth.

A program of reconnaissance soil geochemistry and geological mapping was carried out in September-October 1984 on the western half of the Gio 5 claim. No economic mineralization was encountered, however, several zones of strong silicification and alteration, at least one with fine disseminated pyrite, were noted on the northwestern part of the property. A strongly silicified and altered intrusive stock with numerous related dykes occur adjacent to the claim area, and at least two small dykes were noted within the claim. A number of small, weak, scattered coincidental silver-zinc-lead-copper-arsenic soil anomalies were also outlined, several of which occur in the general area of silicification and alteration. Background soil values for all five elements appear lower than in areas to the south, and subanomalous but high background values could also be of significance

in this area.

Work to date is insufficient to fully assess the mineral potential of this region. The lack of a strong soil response is discouraging but not conclusive. The presence of silicification, alteration and pyritization associated with weak geochemical anomalies, however, is encouraging, as are the presence of intrusive dykes and stocks within and adjacent to the property. Further work is required.

LOCATION AND ACCESS

The Gio 5 mineral claim, consisting of 20 units, is located on the northern flank of Grouse Mountain, 32 kilometers southeast of the town of Smithers and 22 kilometers north of the town of Houston, in north central British Columbia. The terrain is moderately to gently sloping to the west with large, flat, swampy areas in the eastern part of the claim. Elevations range from 3500 to 4100 feet (1060 to 1250 meters). Rock outcroppings range from poor to fair, with the best exposures in the western half. The claim is generally well timbered with balsam fir and minor spruce and pine.

The summit region of Grouse Mountain can be reached via a rough four wheel drive road, a branch of which ends within 1.2 kilometers of the property. Access to the Gio 5 claim can be made from this point, by foot, along cat roads, an old trail, and then cross country for 800 meters to the southwest corner of the property. Access to the rest of the claim area can be gained best by helicopter to numerous open swampy sites. The Yellowhead Highway, a major arterial route connecting Smithers and Houston with points east and west, passes within 5.5 kilometers

of the claim. Daily air service is available to Smithers from Vancouver, Prince George and Terrace, and major railway and helicopter facilities can be found in both Smithers and Houston.

INTRODUCTION

Interest in the Grouse Mountain area began in 1914 with the discovery of copper-zinc-silver mineralization at Coppermine Lake near the summit of Grouse Mountain. Since that time, the area has been worked intermittently, with the main focus being on and around the Ruby zone, about 500 meters southwest of Coppermine Lake and 3 kilometers southeast of the Gio 5 claim. This property, referred to as the Copperhill prospect, has seen extensive development work, with over 1100 meters of drifting and crosscutting and over 8400 meters of diamond drilling to 1983. Published mineral reserves from the Ruby zone are 360,000 tonnes of 0.38% copper, 4.23% zinc and 0.88 oz/ton silver, with an additional 720,000 tonnes of lower grade material in extensions to this zone. Current work, including extensive drilling, is being carried out by Teck Corp. under option agreement with Ramm Ventures Ltd., and recent reports suggest a good potential to substantially increase these reserves.

Work is also being conducted by Adriatic Resources Corp. on its Chance 1 high grade silver-copper prospect which adjoins the Copperhill prospect to the north, and the Gio 5 claim to the southwest. Work during 1984 on the Chance Group included detailed geological, soil geochemical, and VLF electromagnetic surveys with follow-up diamond drilling. Noranda Exploration has also carried out extensive investigations on its Mineral Hill property

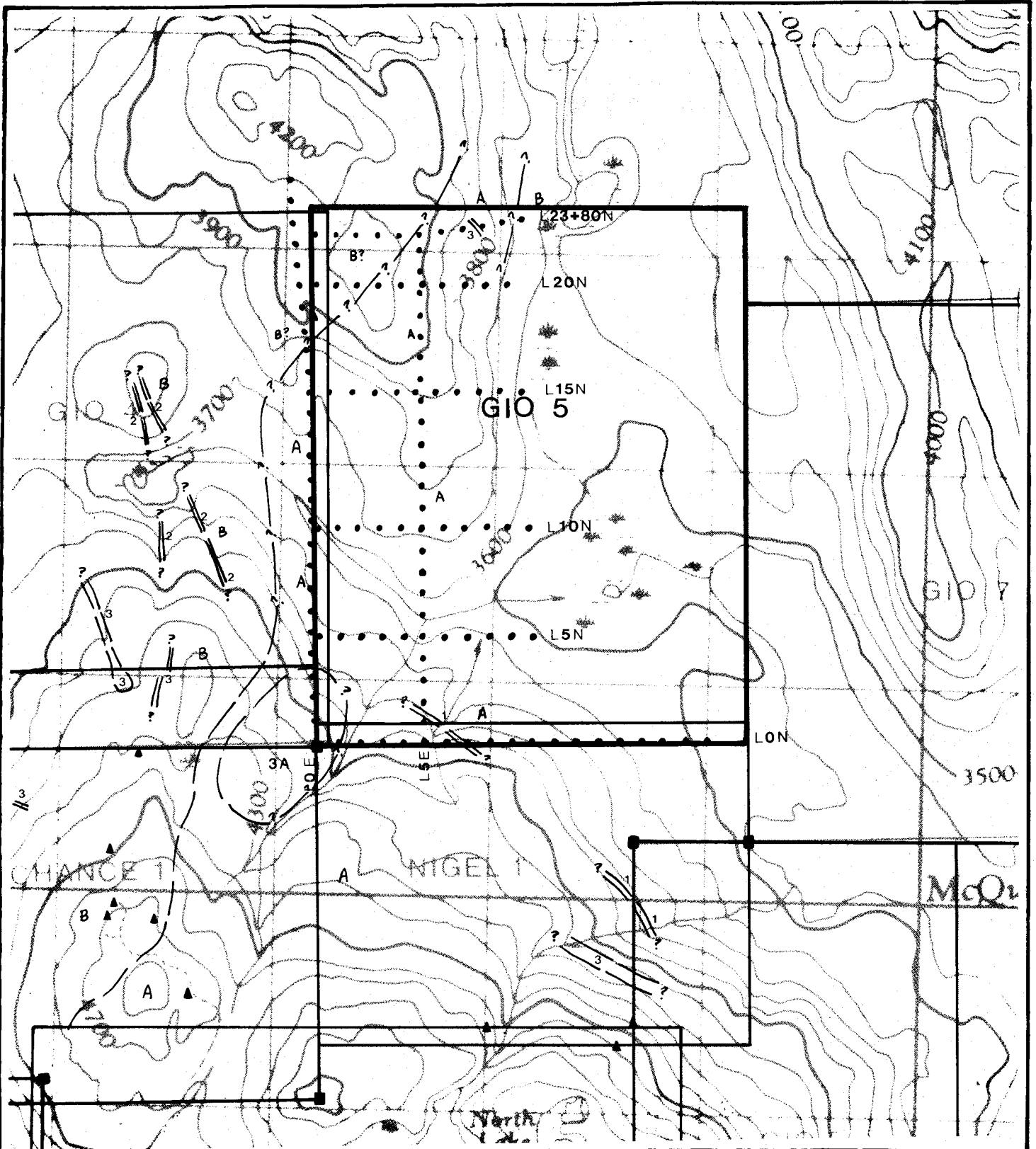
further to the south. Significant silver-copper-lead-zinc-gold mineralization has been reported on these claims.

The Gio 5 claim was staked in May, 1984, and subsequently acquired by Bellabon Resources Corp. in August, 1984. A program of reconnaissance geological mapping and soil geochemistry was completed in September-October 1984 by Holland Geoservices Ltd., under contract to Bellabon Resources Corp. A total of 122 soil samples and 2 rock samples were collected and the claim was partially mapped at a scale of 1:25,000.

GEOLOGY

The Grouse Mountain area is underlain mainly by tuffs, tuffaceous sediments, and minor flow rocks of the lower Jurassic-aged Hazelton Group. These rocks are cut by numerous, generally north to northwest trending dykes ranging from a few meters to in excess of 200 meters wide. The dykes belong to four lithological types: a) trachytoidal feldspar porphyry, b) crowded feldspar porphyry, c) biotite-feldspar porphyry, and d) lamprophyre. These dykes appear to be related genetically and likely stem from the same magma source. In addition to these dykes, a number of small stocks, compositionally similar to but coarser grained than the biotite-feldspar porphyry, have also been observed. Hornfelsing is common but extremely variable within the Hazelton Group adjacent to the dykes and stocks.

The geology of the Gio 5 claim is shown in figure 2. The western half of the claim is largely underlain by massive to moderately fissile (cleavage) maroon tuffs with abundant gritty to sandy white fragments (unit A).



- ▲
- 3 Biotite - feldspar porphyry
- 2 Crowded feldspar porphyry
- 1 Trachytoidal feldspar porphyry
- B Polymictic tuff, graywacke, argillite
- A Maroon tuff



BELLABON RES. CORP.	
GIO 5 CLAIM	
GEOLOGY	
FIG. 2	
Date: Dec. 1984	by R. Holland
NTS: 93L10E	Scale: 1: 25,000

Just west of the claim area, the Hazelton rocks consist of strongly fractured, green, grey or maroon tuffs and tuffaceous greywackes (unit B). The unit B rocks are highly variable compositionally and texturally. In the northwest corner of the claims, the rocks appear to be a mixture of units A and B. These rocks have tentatively been classified as unit B but may represent altered unit A. Several strongly silicified and altered outcrops were observed in this area, including one large area containing significant amounts of very fine disseminated pyrite.

Intruding the Hazelton Group rocks in the southwestern corner of the property is a strongly silicified and altered stock (unit 3A) measuring at least 700 meters by 450 meters. Much of the original mineralogy and texture of this stock appear to have been changed, however, a similar but less altered intrusive body was located in the summit area south of the Gio 5 claim. This stock is medium to coarse grained and comprised of a plagioclase-alkali feldspar-biotite-hornblende?-quartz matrix with numerous plagioclase phenocrysts to 1cm.

At least two small dykes outcrop in the claim area. Along the southern claim boundary is a trachytoidal feldspar porphyry (unit 1), at least 6 meters wide, trending 120° . This dyke is comprised of abundant plagioclase (andesine) phenocrysts up to 40mm long by 3mm thick, weakly aligned, in a near aphanitic dark grey matrix of plagioclase, alkali feldspar, clinopyroxene, and chlorite (Church 1972). A possible extension of this dyke occurs in a creek cut 1 kilometer to the southeast. A similar dyke, up to 200 meters wide, occurs several kilometers to the west, and can be traced for at least 6000 meters in a southerly direction, cutting the mineralization at the

Ruby zone.

The second dyke (unit 3?) occurs in the northern part of the property, trending 140° . This dyke appears to be at least 5 meters wide and consists of a sandy textured matrix of alkali feldspar, plagioclase and biotite with minor, strongly poikilitic biotite plates and plagioclase laths to 1cm (Church 1972).

At least four significant north northwest trending dykes have been noted just west of the claim area. Two of these are crowded feldspar porphyries (unit 2) consisting of tabular, randomly oriented plagioclase phenocrysts, averaging 3 to 8mm long, in a fine sandy matrix of alkali feldspar with lesser plagioclase, pyroxene, chlorite, quartz and magnetite. The other dykes are similar to the unit 3 dyke within the claim, but coarser grained, with abundant feldspar and biotite phenocrysts. Many of the dykes in the Grouse Mountain area are recessive weathering and associated with topographical linears. It is likely that other unexposed dykes also occur in the vicinity of the Gio 5 claim.

MINERALIZATION

Mineralization is widespread in the relatively flat summit area of Grouse Mountain, south of the Gio 5 claim. These showings form a 2 kilometer wide, north northwest trending belt, parallel to and including most of the dykes in the area. Included in this belt are the important Copperhill and Chance 1 mineral occurrences. This mineralization appears to be a result of a large scale hydrothermal system likely related to a large buried intrusive from which the dykes have originated. No mineralization

has yet been located on the Gio 5 claim.

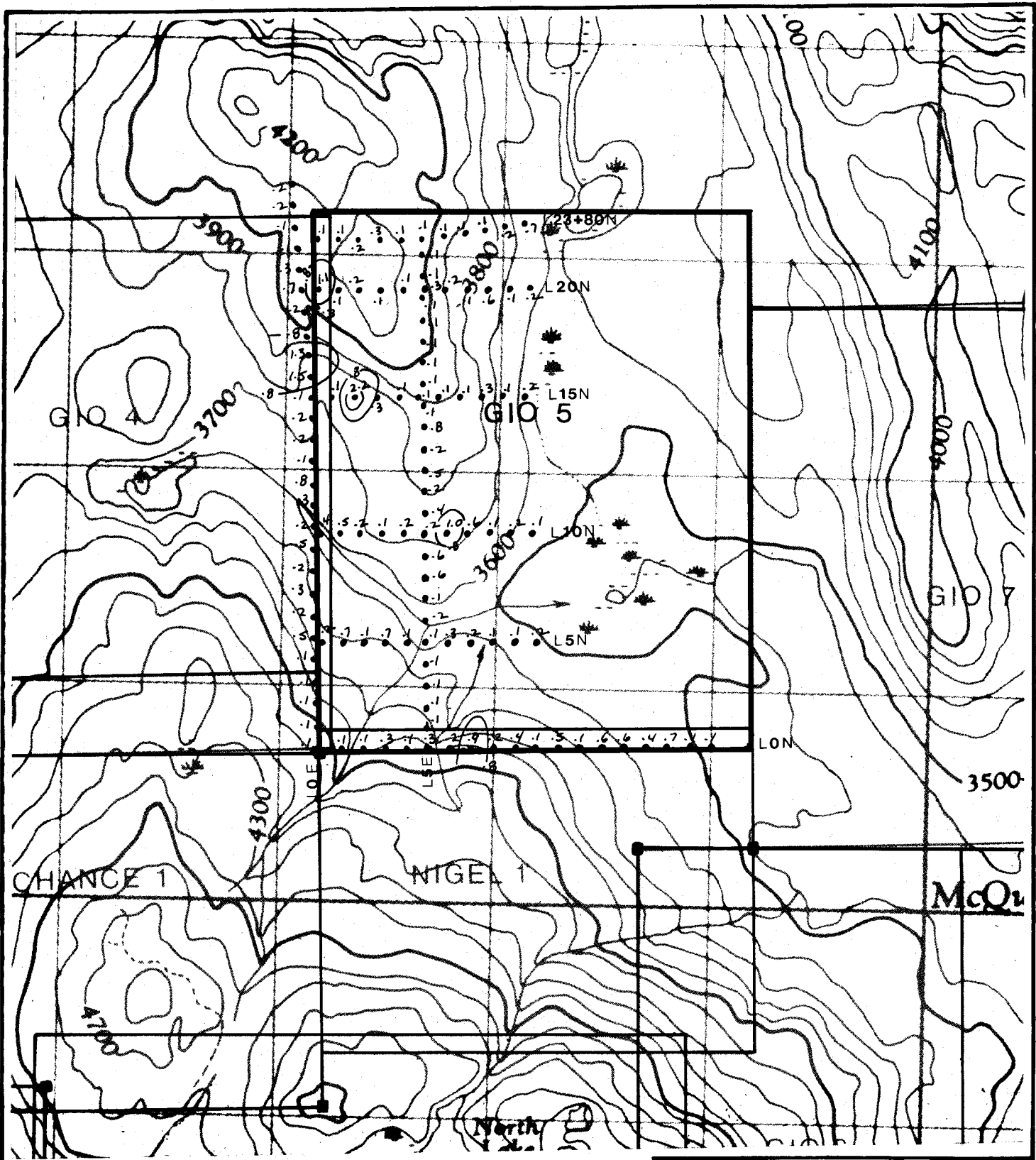
Mineralization on the Chance 1 claim is mainly narrow high grade silver-copper-gold veins and silicified breccia zones consisting largely of tetrahedrite with locally important sphalerite and galena in a quartz-carbonate gangue. The Copperhill prospect occurrences are generally wider and consist of abundant to locally massive chalcopyrite-sphalerite-pyrite in quartz-carbonate rich zones. Values here are mainly copper-zinc with lower grade silver.

GEOCHEMISTRY

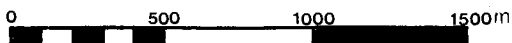
A program of reconnaissance soil geochemistry was completed over most of the Gio 5 claim. A total of 122 soil and 2 rock samples were taken at intervals of 100 meters along 500 meter spaced lines run east-west from two north-south baselines, which were also sampled. Samples were collected, using a prospector's 'grub hoe', as nearly as possible from the 'B' soil horizon (15 to 25cm depth) with an effort to avoid organic rich or leached material. Each sample was stored in a labelled kraft soil bag and shipped to Acme Analytical Labs in Vancouver, B.C. for analysis for copper, silver, lead, zinc and arsenic. Standard aqua regia digestion and ICP analysis methods were used on a -80 mesh size fraction. All results are reported in parts per million (ppm) and are tabulated by element in figures 3 to 7.

Silver

Previous work in the region has indicated a background limit of 0.8 ppm with values greater than 2.0 ppm considered highly anomalous. Five small anomalous zones



• sample location



BELLABON RES. CORP.	
GIO 5 CLAIM	
SOIL GEOCHEMISTRY	
SILVER	
FIG. 3	
Date: Dec. 1984	by R. Holland
NTS: 93L10E	Scale: 1: 25,000

were delineated with values to 2.2 ppm. Three of these anomalies are clustered in the northwestern area of the claim, in the vicinity of the silicified outcrops.

Copper

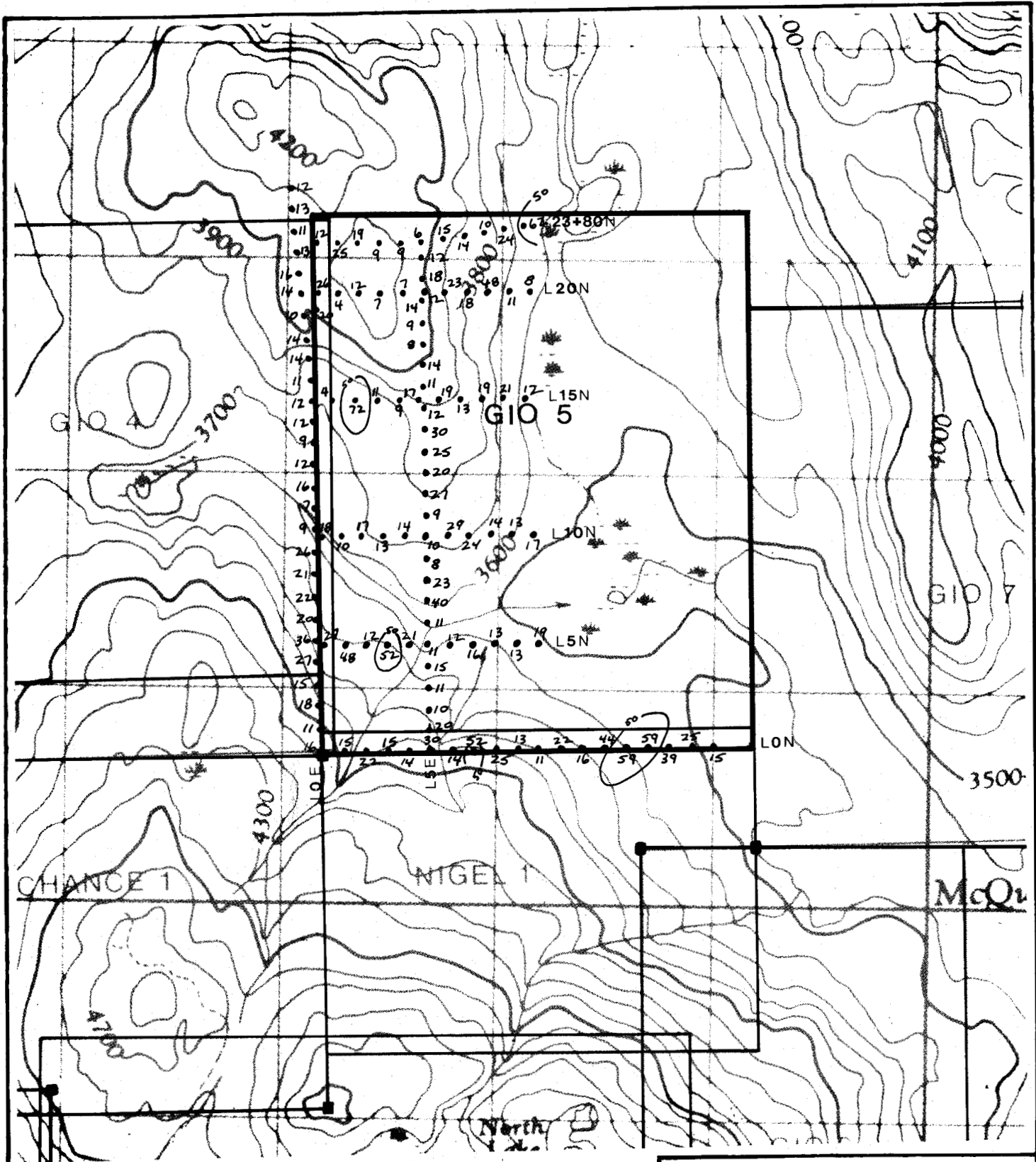
The threshold level for copper for the Grouse Mountain region is 50 ppm, with results greater than 100 ppm considered highly anomalous. Background levels on the Gio 5 claim appear to be much lower than normal, with few values over 30 ppm. Five small, scattered, weak anomalies were outlined with values to 72 ppm. All of these coincide with zones of anomalous or high background (0.6 to 0.8 ppm) silver.

Arsenic

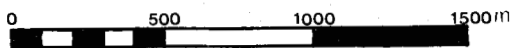
Background limits for arsenic have been determined to be 35 ppm with values greater than 100 ppm considered highly anomalous. Only two anomalously high values, 59 and 143 ppm, were obtained. The first of these occurs coincidental with a silver high in the northwest and the second coincides with a copper-high background silver response along the northern claim boundary.

Zinc

Zinc background limits are normally 250 ppm, with results greater than 500 ppm deemed highly anomalous. Only one anomalous value, 626 ppm, was received, coincidental with a silver high in the northwestern corner of the claim. It was noted, however, that the background levels within the claim area appear to be abnormally low, usually less than 100 ppm. High background levels (150 to 250 ppm) are contoured in figure 6 and six additional small scattered zones were defined, five of which are coincidental with silver and/or copper.



• sample location



BELLABON RES. CORP.

GIO 5 CLAIM

SOIL GEOCHEMISTRY

COPPER

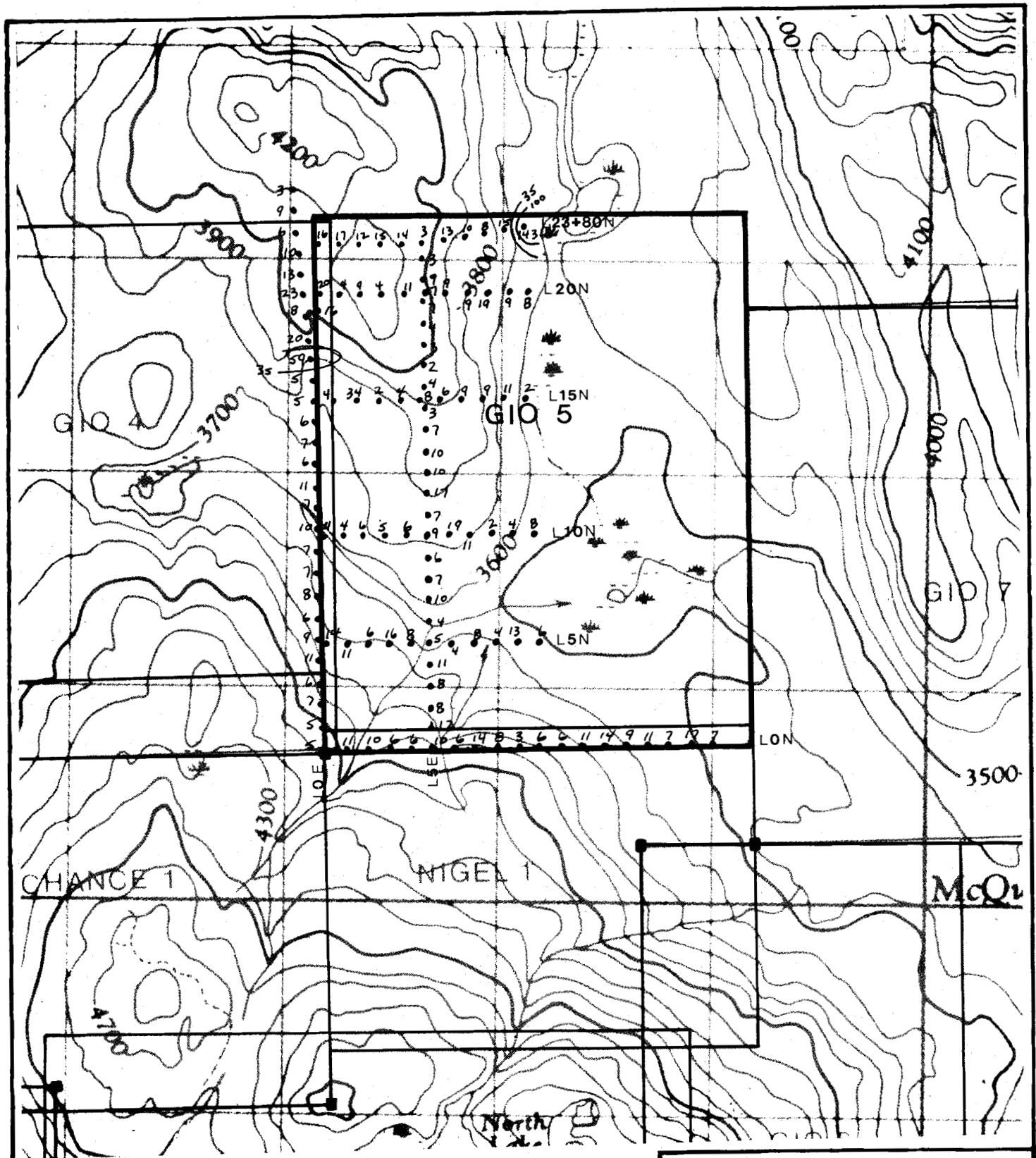
FIG. 4

Date: Dec. 1984

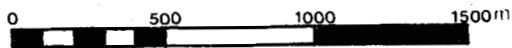
by R. Holland

NTS: 93L10E

Scale: 1: 25,000



• sample location



BELLABON RES. CORP.

GIO 5 CLAIM

SOIL GEOCHEMISTRY

ARSENIC

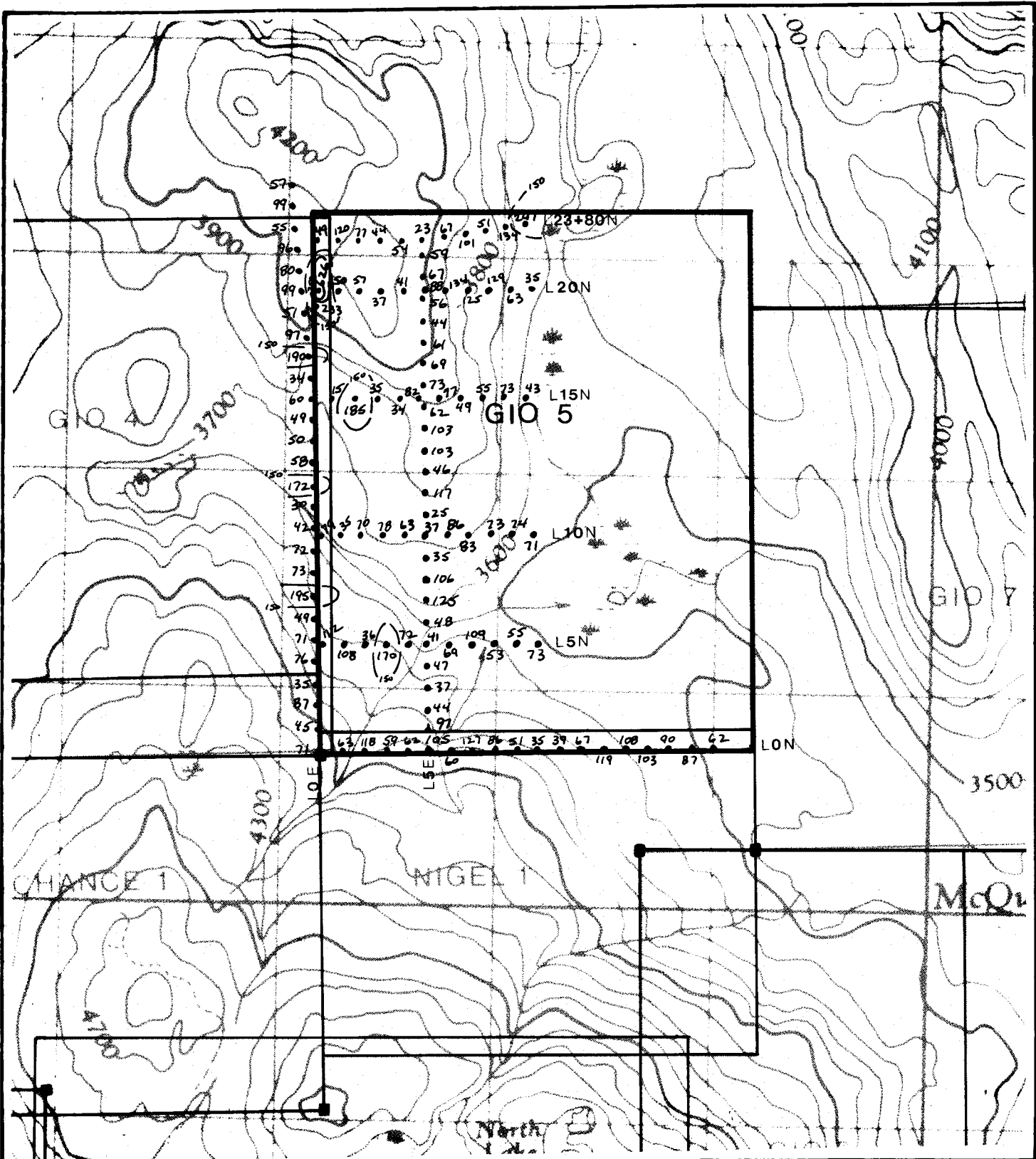
FIG. 5

Date: Dec. 1984

by R. Holland

NTS: 93L10E

Scale: 1: 25,000



• sample location

BELLABON RES. CORP.

GIO 5 CLAIM

SOIL GEOCHEMISTRY

ZINC

FIG. 6

Date: Dec. 1984

by R. Holland

NTS: 93L10E

Scale: 1: 25,000

Lead

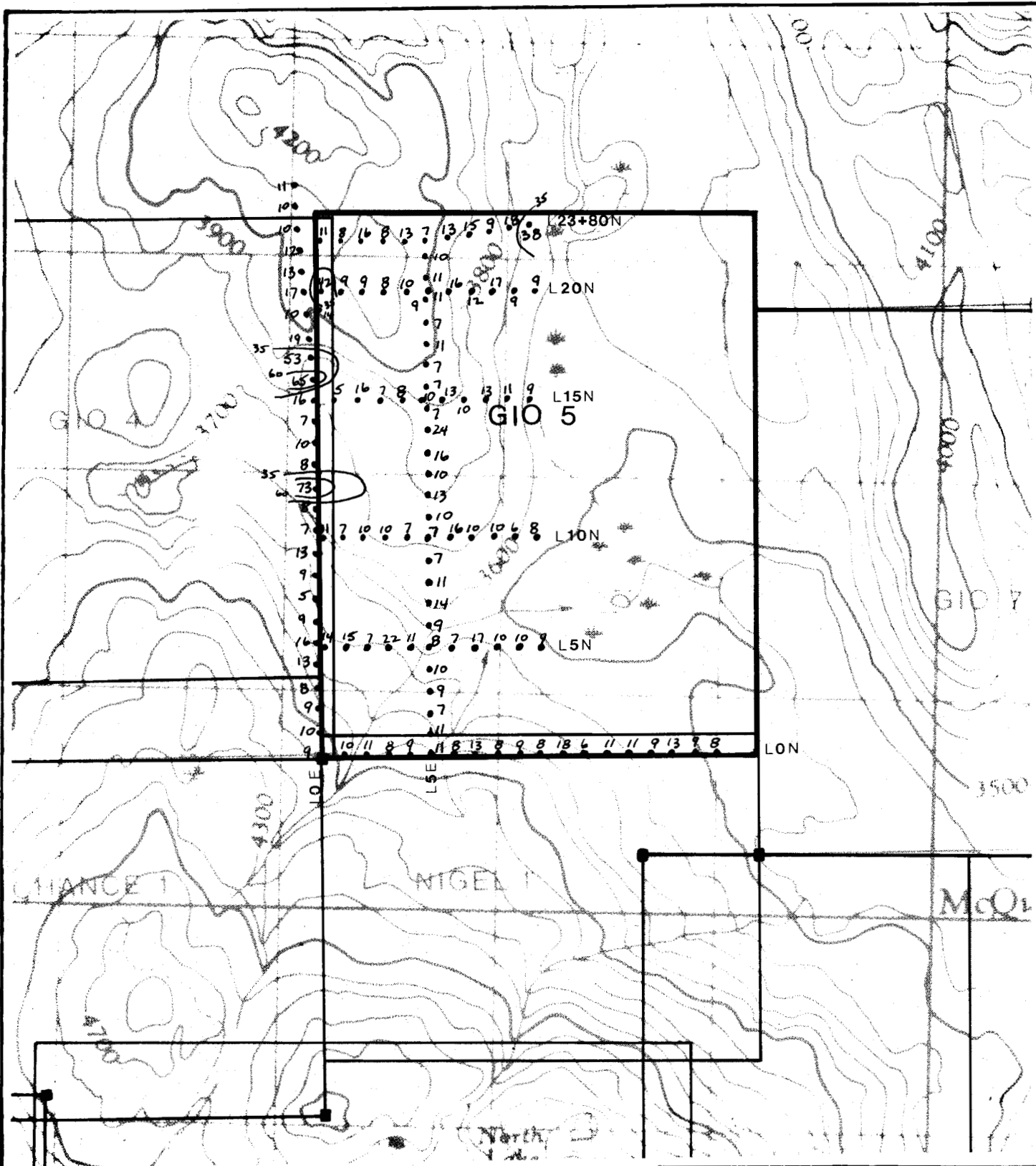
Regional lead values indicate background to be 35 ppm and above 60 ppm to be highly anomalous. Four small anomalous zones with values to 73 ppm were outlined, three of which occur along the western claim boundary coincidental with silver-zinc highs. The fourth anomaly is weak and occurs in the north coincidental with high copper-arsenic-zinc values.

RECOMMENDATIONS

Reconnaissance work to date has indicated some potential for mineralization on the Gio 5 claim. Additional work is required to further test the claim area and to follow up more favorable regions. This work should initially include grid control establishment and detailed geological, soil geochemical and VLF electromagnetic surveys (Phase 1). The estimated cost of this program is as follows:

Line Construction	15 days @ \$150.00/day	\$2250.00
Geological Mapping	15 days @ \$250.00/day	3750.00
Geochemical Survey	15 days @ \$150.00/day	2250.00
Geophysical Survey	15 days @ \$150.00/day	2250.00
Assays and Geochemical Analysis		5000.00
Camp Costs	60 days @ \$50.00/day	3000.00
Equipment and Supplies		1000.00
Report and Supervision		3000.00
Mobilization Costs		500.00
Contingencies @ 10%		2300.00
		<hr/>
	Total of Phase 1	\$25300.00

Phase 2 work is contingent on establishment of favorable targets from the first phase.



• sample location



BELLABON RES. CORP.

GIO 5 CLAIM

SOIL GEOCHEMISTRY
LEAD

FIG. 7

Date: Dec. 1984	by R. Holland
NTS: 93L10E	Scale: 1: 25,000

REFERENCES

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- Chisholm, E.O., July 2, 1983, Geological Report on the Last Chance 1 and 2 Claims, unpublished report for Adriatic Res. Corp.
- Church, B.N., B.C. Dept. of Mines and Pet. Res., G.E.M., 1969, p. 142-148.
- Church, B.N., Hutter, J.F., B.C. Dept. of Mines and Pet. Res., G.E.M., 1973, p. 334-338.
- Church, B.N., 1972, B.C. Dept. of Mines 'Geology, Exploration and Mining in British Columbia', p. 397-417.
- Geol. Surv. Canada, Open File 351, 1976, Smithers, B.C. 93L.
- Holland, R.T., Dec. 6, 1982, Summary Report on the Last Chance 1 and 2 Mineral Claims, unpublished report.

STATEMENT OF COSTS

The following costs were incurred by Holland Geoservices Ltd., on behalf of Bellabon Resources Corp., for work conducted on their Gio 5 mineral claim on Grouse Mountain near Smithers, B.C. Work was carried out during the period September 20 to December 12, 1984.

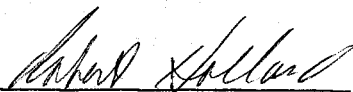
Camp Costs (food)	
5 days @ \$15.00/day	\$75.00
Equipment and Supplies	119.15
Geochemical Analysis	
124 samples @ \$4.70/sample	582.70
Labour Costs	
R. Holland, geologist	
4 days @ \$250.00/day	
Sept. 20, Oct. 6, 7, Nov. 21, Dec. 5, 12	1000.00
D. Septer, field assistant	
3 days @ \$150.00/day	
Sept. 22, Oct. 3, 4	450.00
Office Costs	
clerical - 6 hours @ \$10.00/hr	60.00
telephone - long distance calls	11.32
Transportation (gas, freight)	60.80
Truck Rental	
2 days @ \$50.00/day	100.00
Total Costs	<u>\$2458.97</u>



QUALIFICATIONS

I, Robert Holland of 13451 - 112A Avenue, Surrey, British Columbia, hereby certify that:

1. I am a graduate of the University of British Columbia (1976) and hold a B.Sc. degree in geology.
2. I am currently employed as a consulting geologist with Holland Geoservices Ltd. of 13451 - 112A Avenue, Surrey, British Columbia.
3. I have been employed in my profession by various mining exploration companies for the past nine years.
4. The information contained in this report was obtained as a result of field work carried out under my supervision by Holland Geoservices Ltd. in 1984.
5. Neither Holland Geoservices Ltd. nor myself have any interest, direct or indirect, in the property described, nor in the securities of Bellabon Resources Corp.


Robert Holland, B.Sc.
consulting geologist