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PROPERTY FILE

A REPORT ON THE
LOIS PROPERTY

NANAIMO AND ALBERNI MINING DIVISIONS
BRITISH COLUMBIA

LATITUDE 50° 16'N
LONGITUDE 127° 37"W

N.T.S.
92L 5E

for
Gold Leaf Ventures Inc.

by
G.H. RAYNER, P. ENG.
G.H. RAYNER & ASSOC. LTD.

WEST VANCOUVER, B.C.

NOVEMBER 15, 1988

1:0 SUMMARY AND CONCLUSIONS

The Lois Property in the Brooks Peninsula area of northwest Vancouver Island was originally explored as a porphyry copper prospect. This early work did not define an economic body of porphyry copper ore however it did identify an altered complex porphyry intrusive system with attendant brecciation and alteration. The complex is anomalous in a number of base and indicator metals in addition to copper. Gold was not the objective of the early work however values up to 8.6 gms/tonne (0.25 oz/ton) across 3 meters (10 feet) were obtained from a breccia zone related to the complex.

Recent work completed by Gold Leaf Ventures has included geochemical soil analyses for gold and gold indicator elements as well as the base metals determined in earlier surveys. Several areas of potential for gold mineralization are indicated by this recent program both within the intrusive complex and on its periphery. Further work is recommended and a proposed program is outlined.

2:0 INTRODUCTION

The Lois Property has been known since the early 1960's but only recently has its potential for gold mineralization in a porphyry environment attracted interest. Previous exploration programs directed toward the search for copper have accumulated a significant body of basic data. Gold Leaf Ventures Inc. have recently acquired the property and are undertaking to explore its precious metal content.

3:0 LOCATION AND ACCESS

The property is located about 18 kilometers southwest of the village of Port Alice on northwestern Vancouver Island. The claims straddle the rounded ridge separating the Little Klaskish River drainage on the north and the Nesparti River drainage on the south.

The specific location lies on N.T.S. map sheet 92/5E centered at approximately Latitude 50° 16' North; Longitude 127° 37' West.

Present access to the property is by helicopter, either from the end of the logging road network about 5 kilometers east of the property or from the helicopter charter base at Port Hardy, about 50 kilometers to the northeast. Port Hardy itself is on the northern end of the Island Highway system and has daily air service from Vancouver. Most services are available here.

The nearest logging road connecting to the outside road system ends at present in Colonial Creek about 5 kilometers to the east of the property. The timber company intends to continue this road further west at some future date but has no firm plans at this time.

On the property, vegetation is mainly dense coastal forest with some slope muskeg. Moderate to thick underbrush makes traversing slow in most areas.

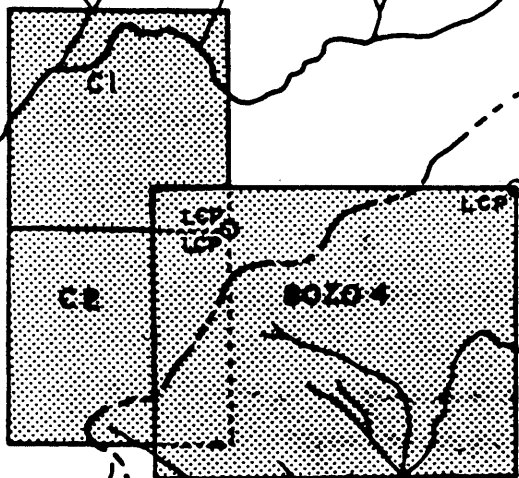
4:0 PROPERTY

The property consists of 3 M.G.S. claims totalling 38 units (760 hectares). The property straddles the boundary between the Alberni and Nanaimo Mining Division so that two of the claims are recorded in Nanaimo and one in Alberni.

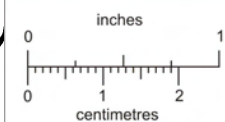
KLASKISH

RIVER -4-

NANAIMO M.D.
ALBERNI M.D.



50°15'



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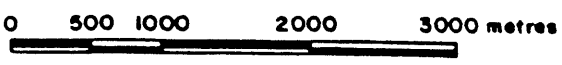
G. Rayner
 PROFESSIONAL
 OF
 CERALD H. RAYNER
 BRITISH
 COLUMBIA
 ENGINEER

127° 35'

GOLD LEAF VENTURES INC.
LOIS PROPERTY
CLAIM MAP

G.H.RAYNER & ASSOCIATES LTD.

DRAWN: G.H.R./dw	SCALE: 1:50,000	FIG.
DATE: DECEMBER, 1988	N.T.S. 92L/4E&5E	2



Claim details are as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Rec. No.</u>	<u>Min. Div.</u>	<u>Expiry Date</u>
Bozo 4	20	1877	Alberni	Oct. 19, 1990
C1	9	2972	Nanaimo	June 9, 1992
C2	9	2973	Nanaimo	June 9, 1992

The claims are recorded in the name of J. McDonald from whom Gold Leaf Ventures are understood to hold the property by agreement. Further details of title are beyond the scope of this report.

5:0 HISTORY AND PREVIOUS WORK

The first known work on the property was by Rio Tinto Canadian Exploration Ltd. who staked the ground in 1963. During 1963 and 1964, Rio carried out a work program which included geochemical surveys, limited geological and self-potential surveys and four diamond drill holes. The results of this work are not available but Rio was apparently not encouraged by the porphyry copper potential and the ground was allowed to lapse.

In 1969, the ground was re-staked by Vanco Explorations Ltd. of Vancouver, B.C.. Vanco conducted geological, geochemical and ground magnetometer surveys over the Lois stock and the surrounding area. In addition, about ten line miles of Induced Polarization survey were run over the northern portion of the stock.

Following this, the ground became part of a joint venture between Vanco and Esso Minerals in the mid-1970's. Esso re-evaluated the existing data, did limited additional mapping and drilled one hole to a depth of 213 meters (700 feet).

The results were again not encouraging in porphyry copper terms although there are reports of one occurrence of visible gold in this hole. The ground was subsequently dropped by Vanco-Esso.

In 1984, Brinco optioned the claims from the present owner, Jim McDonald, who staked the claims in 1983. No results of Brinco's work are available.

During the 1988 field season, Gold Leaf Ventures Inc. laid out a new grid on the complex and collected 524 soil samples. Line spacing was at 50 meters and the sample interval on the lines was 25 meters. At the same time a magnetometer survey was run over the grid with a Syntrex MP-2 instrument. The results of this program are presented in this report.

6:0 REGIONAL GEOLOGY

In the Lois area, a complex quartz diorite stock intrudes rocks of the Vancouver Group. The Vancouver Group is Upper Triassic to Lower Jurassic in age. It is composed of three members, the lower Karmutsen Formation, overlain by the Quatsino Formation and the Bonanza Subgroup.

The Karmutsen Formation is composed of various basaltic volcanics with some sediments in the upper part. The Quatsino is almost entirely limestone. The Bonanza is mainly andesitic volcanic material in the upper part, with some sediments in the lower part.

Regional mapping by Imperial Oil indicates that Karmutsen rocks enclose the Lois stock except on the northern edge, where it is probably in contact with lower Bonanza rocks. The Quatsino, if present, is either poorly developed or poorly exposed in this area.

In a structural sense, the property lies on the southern projection of the regional Mahatta River fault. This fault system is a recognized regional feature to the north following (and forming) the Mahatta River Valley. To the south of the Lois area the linear valley of the Power River indicates that the fault structure is of regional scale. In the

Lois area itself, the through-going fault structure is locally blotted out by the influence of the Lois and other intrusives and by transverse features. This interruption of the regional Mahatta fault system by the Lois and related intrusives suggests a locus of significant activity in this sector.

7:0 PROPERTY GEOLOGY

The intrusive complex that dominated the geology of the Lois Property is essentially a failed porphyry copper system. This system has been intruded into country rocks consisting primarily of basaltic Karmutsen Volcanics (Vancouver Group) with possible minor Bonanza Group sediments in-faulted on the northeast.

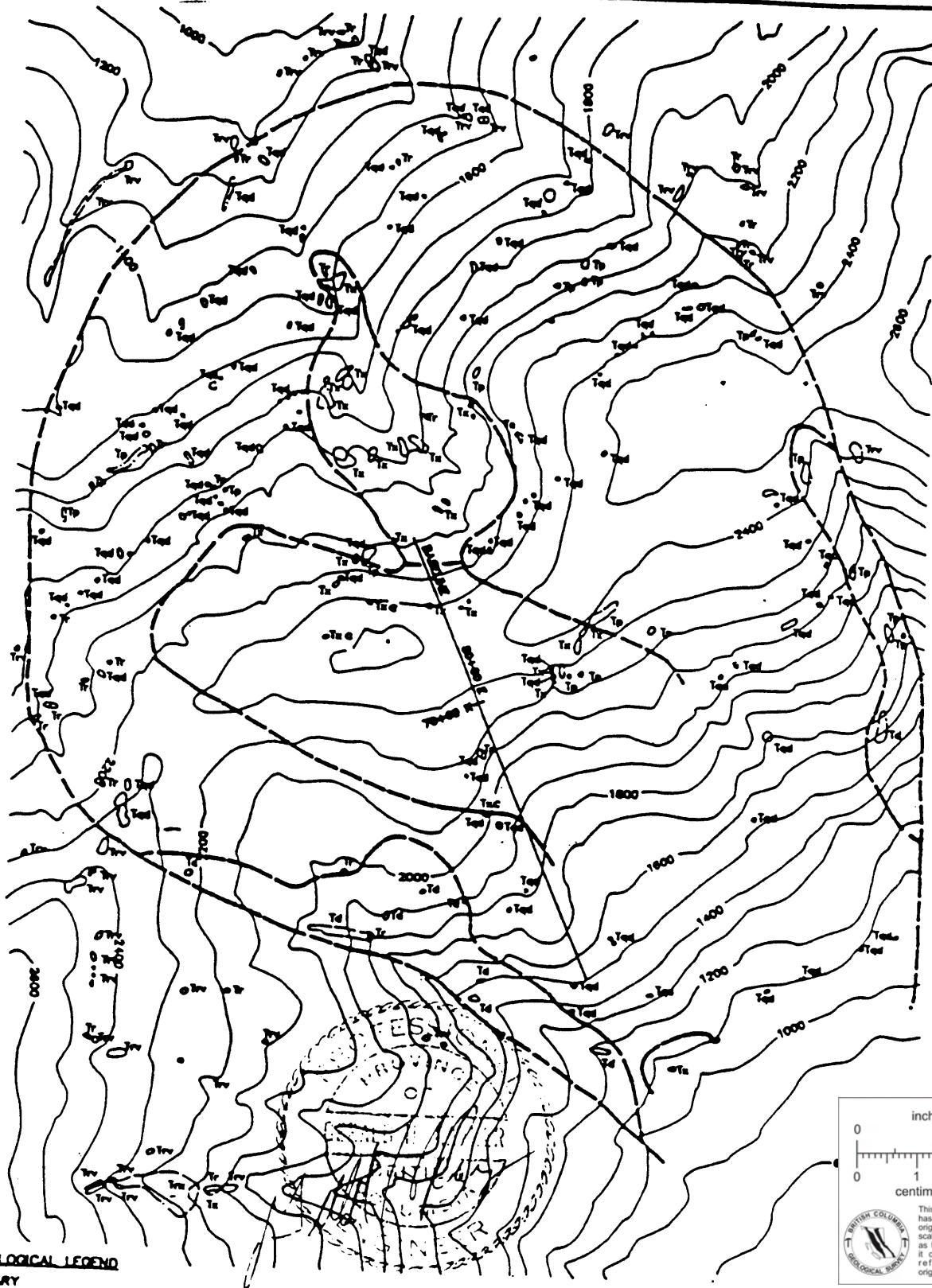
The geological mapping presented in Figure 3 was carried out by Gold Leaf Ventures in 1988. Some modifications have been incorporated from earlier work by Vanco and Esso geologists including the writer.

The following discussions of the various units on the property and the relations between them derives mainly from observations made by the writer in 1974.

7:1 VANCOUVER GROUP

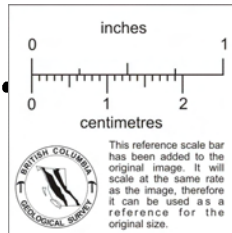
Basaltic flows of the Karmutsen Formation are the major representatives of the Vancouver Group in the area. The Lois complex is in contact with these rocks on all sides. Some grey limestone and thin bedded argillites are found in the Karmutsen. The amount of this material increases to the north until, in the exposures to the northeast of the stock, it makes up 20 to 30 percent of the section. This sedimentary material is believed to represent the uppermost Karmutsen.

Karmutsen rocks seem to be little affected by the Lois intrusion. There is some hornfelsing near the contact but the effects do not



GEOLOGICAL LEGEND

- TERTIARY**
- DYKES**
- Tr Rhyolite
 - Tb Basalt
- BRECCIAS**
- Trs "Southern" Rhyolite Bx.
 - Trt Intrusive Rhyolite Bx.
 - Trc Classic unit
- INTRUSIVES**
- Trp Quartz Diorite Porphyry
 - Teq Quartz Diorite
 - Te Coarse Diorite
- TRIASSIC**
- Trv Kermutsen Basalt
- Area of Outcrop
- Geological Contact Approximate
- Diamond Drill Hole
- ~ Fault Approximate



GOLD LEAF VENTURES INC.		
LOIS CLAIMS GROUP		
BROOKS PENINSULA		
GEOLOGY MAP		
DATE: OCT. '88	N.T.S.: 92L/5E	FIGURE: 3
<i>J. Paul Stevenson Associates</i>		

penetrate the flows very far. Beyond about 100 feet from the contact, the only effects noted are dykes, rare veins and one rhyolite breccia zone. A magnetite body replacing limestone about 2000 feet northeast of the stock may also be related to it.

Regional mapping by Imperial Oil geologists indicated that rocks of the Bonanza Subgroup and perhaps of the Quatsino Formation may be in contact with the complex on the north. This is consistent with the increasing sedimentary component in the northernmost Karmutsen exposures.

7:2 QUARTZ DIORITE

The oldest unit in the complex is a medium to coarse grained hypidiomorphic textured quartz diorite. It forms the outer portion of the intrusive complex and makes up over half of it. It is composed of about 70 percent plagioclase with about 20 percent quartz and 10 percent mafic minerals. The mafics are mainly hornblende with variable amounts of primary biotite.

A narrow band or septum of this rock has been mapped as wrapping around the south side of the rhyolite breccia area. It seems likely that the rocks in this band are not quartz diorite but are part of the quartz diorite porphyry area to the south. Near the breccia body, the porphyry seems to have been altered and the porphyritic texture destroyed. This gives the rock a superficial resemblance to the quartz diorite.

7:3 QUARTZ DIORITE PORPHYRY

Quartz diorite porphyry occupies much of the core of the complex. In all, it makes up about one-third of the area of the intrusive. The porphyry is darker and slightly finer grained than the quartz diorite. Plagioclase makes up about 70 percent of the rock, mainly as phenocrysts. Quartz totals about 20 percent, with about half as phenocrysts and half as groundmass. The remaining 10 percent

is made up of varying proportions of hornblende and primary biotite. The rock usually carries some secondary fine grained biotite as well, which is largely responsible for the darker grey colour.

In texture and grain size the rock is quite consistent throughout most exposures. It is usually moderately well fractured.

One clearly identifiable xenolith of quartz diorite was found in the porphyry, establishing an age relationship between these two rocks.

7:4 RHYOLITE BRECCIA.

The rhyolite breccia is the youngest major unit in the complex. It underlies an oval shaped area in the core of the complex, oriented to the northwest. It is about 800 feet in width and 1400 feet long, with a narrow, structurally controlled lobe extending an additional 600 feet to the north.

The breccia is a white to cream coloured rock that commonly weathers a pale yellowish-brown. It is strongly bleached and altered to clays so that details of structures and textures are often unclear. Most of the exposures seen in the zone are definitely of breccia but some areas may be a highly xenolithic altered rhyolite.

Fragments are usually subrounded and grade in size from dust to three feet. The bulk of the fragments are of rhyolite but in some exposures a high proportion appear to have once been quartz diorite or quartz diorite porphyry.

About one quarter of the breccia exposures show a banding that is probably flow banding. In some areas it is quite fine and in others quite coarse, with bands to one inch in thickness. This coarser flow structure is often developed in a fine grained breccia (?) that may be a highly xenolithic rhyolite. Banding attitudes are variable and locally sinuous. Dips are usually steep.

Small areas of secondary breccia up to ten feet across are common. In one instance, a secondary breccia is cut by a dyke-like third stage breccia about three inches wide. These later breccias are clearly crosscutting. They are normally composed of finer grained material than the enclosing breccia. Otherwise their composition and levels of alteration and mineralization are similar.

7:5 CLASTIC UNIT:

Within the area previously mapped as quartz diorite porphyry, there is a substantial body of rock that, in the writer's opinion, is clearly not intrusive porphyry. On the Vanco grid, this unit extends in a band about 500 feet wide from about L 16S, 6+00W to the area around L 28S, 14+00E, for a length of some 2500 feet. It has not been delineated in detail and may be more extensive than this.

This clastic unit is composed of angular to subrounded fragments set in a fine grained groundmass. In the field, some of the fragments resembled the quartz diorite porphyry but because of their altered condition the identification was not certain. In two thin sections cut of this rock, all the fragments seen were of feldspar porphyries. The fragments exhibited a variety of textures. In general, they appeared to be volcanic in origin. No clearly intrusive rock fragments were seen in thin section. None of the fragments contained quartz.

In thin section, the matrix showed definite clastic textures. It was composed of rock flour, fine fragments and broken crystal fragments. It also carries up to 10 percent quartz as clear rounded grains. The origin of this quartz is uncertain. It may represent silicification.

In most exposures the clastic unit is strongly impregnated with secondary biotite. This tends to mask the fragmental texture, so that the rock often superficially resembles the quartz diorite porphyry.

The origin of the unit is not clear. It looks like a normal pyroclastic that has been caught up in the intrusive complex. However, no similar pyroclastics were seen in the surrounding volcanics. If it is a pyroclastic block, it may have undergone considerable vertical displacement during the development of the complex.

7:6 DYKES

Several types of dykes cut the complex. The attitudes of all of them are similar, with strikes slightly east of north and steep dips.

Rhyolite dykes are the commonest type observed. They occur up to at least twenty feet in width. They are found cutting all phases of the complex from the Karmutsen basalts to the rhyolite breccia. Banding is often noted. Rhyolites are commonly porphyritic, with fine quartz phenocrysts in the one to two mm size range.

Andesite dykes are also fairly common. They range in thickness from about four feet to fifteen feet. They are fine grained, grey-green in colour and weakly porphyritic.

The phenocrysts in these dykes are a clear vitreous feldspar with one good cleavage. They are euhedral and occur as roughly square crystals or stubby prisms. In thin section, about 20 percent of them show a single twin plane and the rest are untwinned. They are believed to be sanidine.

Along their margins, andesite dykes often show a chilled band of glass a foot or more thick. Narrow glass dykes composed of similar material are seen at various places through the complex. It is notable that no narrow andesite dykes are observed nor any glass dykes wider than about four feet. It seems reasonable to conclude

that these are merely textural varieties of the same rock. The sanidine phenocrysts are equally abundant in both types.

One dyke of quartz-feldspar porphyry was seen cutting the rhyolite breccia near its center. It is about forty feet wide, vertical and striking at about 100 degrees. It is somewhat bleached and clay altered, indicating that these alteration processes were active some time after the emplacement of the rhyolite breccia.

The size and shape of the quartz and feldspar phenocrysts are reminiscent of the quartz diorite porphyry. Since their compositions are similar, it may be a late phase of this unit.

The only other dykes noted during the examination were three dark green basalts about three feet wide. All of these were cutting rhyolite breccia.

7:7 SOUTH RHYOLITE BRECCIA

This area of rhyolite breccia lies outside of the intrusive stock on the southwest. The area is of interest because a 3 meter (ten foot) chip sample taken by Vanco here returned a value of 8.6 gm/tn (0.25 oz/t) in gold. Three other samples were blanks. The exact sample locations are not known. Limited check sampling by Gold Leaf Ventures staff in 1988 did not return significant values. The zone is much more complex than indicated on the geological map. In addition to breccia, there are several dykes mainly of basaltic or andesitic composition cutting the breccias and the surrounding basaltic volcanics. At the west end of the breccia there is an outcrop, probably a large dyke, of coarse grained quartz diorite of the type making up the southern margin of the Lois stock a few hundred feet to the north.

The breccia itself exhibits several different alteration types over its 100 to 125 meter length. The most common type, making

up over half the exposure, is characterized by strong bleaching, silicification and carbonatization. The carbonate is a brown-weathering, iron-bearing type. The proportions of silica and carbonate vary from place to place. Some areas several tens of feet in width are strongly silicified. These areas show rare traces of a pale green mineral that may be mariposite. The gold-bearing Vanco sample is plotted in one such area. Traces of chalcopyrite are found locally. Two to four percent of pyrite accompanies this alteration type. It is found as disseminations and on fractures.

A less common alteration type consists of bleaching and clay alteration. This is similar to the alteration in the main rhyolite breccia in the center of the Lois stock. These rocks are soft in outcrop and quite weathered. They may once have contained pyrite but only small spots of limonite remain in surface material.

At the east end of the breccia exposures there is a small body of fresh breccia about ten feet by twenty feet in size. From field relations it is not clear whether this exposure is an unaltered remnant of the same breccia or a separate, later, breccia pipe.

7:8 ALTERATION

In the Lois complex, the most widespread type of alteration is the introduction of secondary biotite. Secondary biotite is common in all main units except the rhyolite breccia. It is not evenly distributed in all rock types, being erratic in the quartz diorite, common in the quartz diorite porphyty and very abundant in the

clastic unit. It is so well distributed that it loses its normal usefulness as an indicator of areas favourable for copper mineralization.

The biotite gives a distinctive brownish caste to the rock but seldom shows identifiable flakes in hand specimen. In thin section it is finely felted.

The rhyolite breccia zone has been strongly bleached and altered to clays. Similar alteration effects can be seen with decreasing intensity for perhaps a hundred feet into the surrounding rocks. The alteration in this breccia is very similar to that in breccias on the nearby Tent Claim Group to the northeast. The main difference is in the presence of minor amounts of chlorite in the Tent breccias.

The rhyolite breccia and its attendant clay alteration are late features that probably post-date the biotite alteration. In the rocks surrounding the breccia, clay alteration has destroyed the biotite to varying degrees. Similar but more complex alteration patterns are noted in the South Rhyolite Breccia and have been discussed under that heading.

8:0 GEOCHEMISTRY

Previous work by Vanco included a soil geochemistry survey over the northern portion of the complex. The samples were analyzed for molybdenum, copper, lead and silver. A few were also analysed for zinc.

Samples taken over the Karmutsen volcanics indicated scattered areas anomalous in copper and molybdenum to the northeast of the stock. There is also an area anomalous in lead to the southwest. Values in all of these metals within the stock were surprisingly low. Only

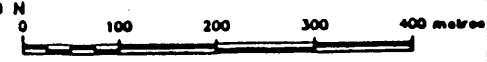
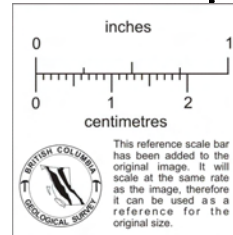
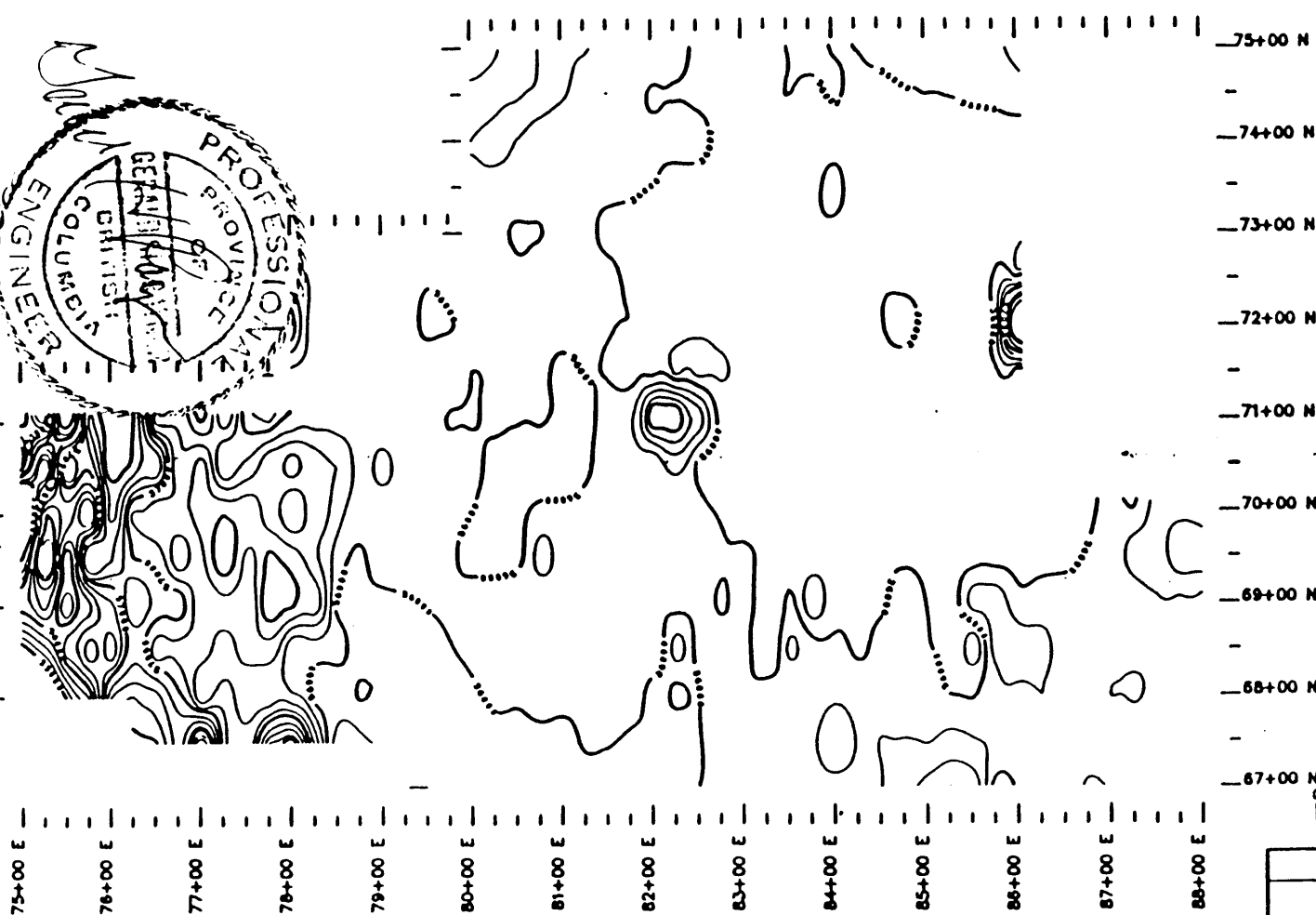
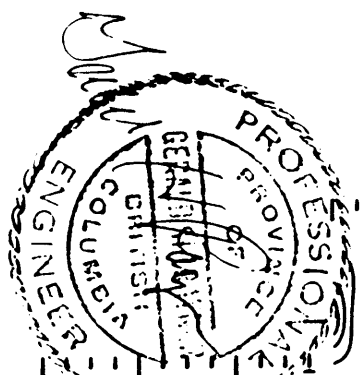
one value of greater than ten ppm molybdenum occurs within the stock, despite the fact that molybdenite has been reported at several points. Similarly, copper values are lower than would be expected from the exposed mineralization.

During the 1988 field season, Gold Leaf Ventures collected 524 soil samples on a grid covering the southern portion of the complex. Sample spacing was at 25 meters on lines 50 meters apart. The samples were sent to Acme Laboratories Ltd. in Vancouver where they were analyzed for 30 elements by I.C.P. and by Acid Leach and Atomic Absorption for gold. Results of sample analyses were statistically analyzed to determine the anomalous levels for each element by New Horizon Software Ltd. of Vancouver, B.C. (See Appendix for figures.) The plots for zinc, vanadium, silver, nickel, molybdenum, lead, gold, copper, cobalt, chromium and arsenic are considered to be of significance or possible significance and are included in this report. (Figures 6 to 16).

The most important element, of course, is gold itself, the main target of the present program. The gold results (Figure 10) show scattered high values over two main areas of the grid; the eastern and northeastern portion, with values peaking at 305 ppb and over an area in the southwest of the grid where values range up to 162 ppb. Both of these areas of anomalous values are mainly underlain by quartz diorite with the clastic unit underlying the central area of low values. The South Breccia lies a short distance south of the area of higher values in the southwest portion of the grid.

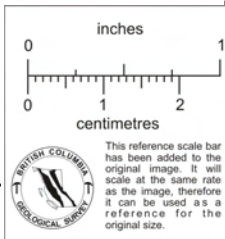
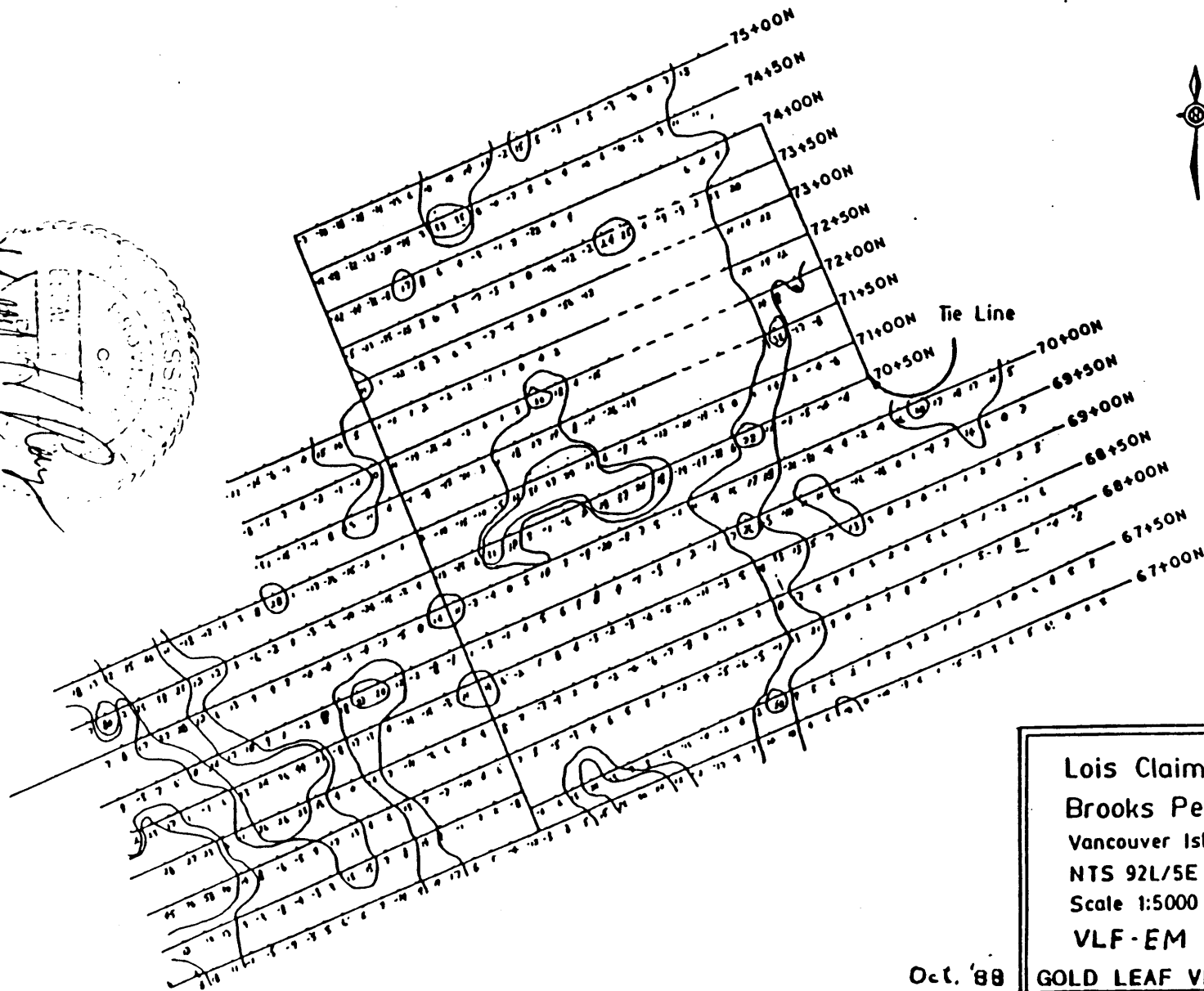
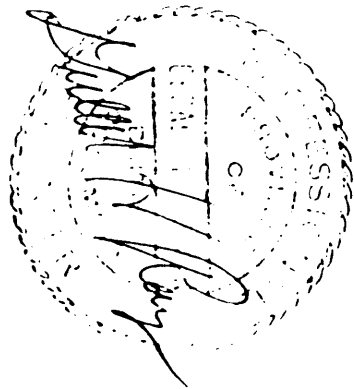
Similar but slightly more diffuse patterns of values are seen for cobalt, copper, lead, zinc and silver. The generally similar distributions of all of these elements probably reflect similar hydrothermal sources.

Molybdenum shows a small cluster of anomalous values just north of the 7000 North line centered about 8500 East. This does not correlate well



Legend
250 gamma contour interval

J. PAUL STEVENSON ASSOCIATES			
GOLD LEAF VENTURES INC.			
LOIS CLAIMS GROUP			
MAGNETOMETER CONTOUR MAP			
SCALE: 1:5,000	DATE: 03-30	HTS: AB-11	DRAWN BY: JPS sheet: 4



Lois Claims Group
Brooks Peninsula
Vancouver Island, B.C.
NTS 92L/5E
Scale 1:5000 Drawn By K.C.
VLF-EM Fig. 5

Oct. '88

GOLD LEAF VENTURES INC.

with gold or any other element. The source is not known but is probably not worth pursuing at this time.

Arsenic shows a close clustering of anomalous values with highs ranging up to 4865. These higher values are consistent with the arsenopyrite visually noted in previous years at various points in the complex. Unfortunately, the arsenic distribution shows little or no correlation with gold. Consequently, this usually useful indicator element appears unlikely to help in delineating gold targets in this area.

Three elements; nickel, chromium and vanadium all show similar distributions that are markedly different from those of other elements. All three show elevated levels on the west end of the grid in an area mapped as underlain by quartz diorite. This is also an area of higher magnetometer response as well so perhaps there are more basic rocks in the area than are apparent from the mapping.

To summarize the geochemistry, gold appears to be the most useful element however areas of anomalous values are not sufficiently coherent to define drilling targets. Further detail fill-in sampling combined with surface work will be required to adequately define the source areas.

9:0 GEOPHYSICS

In years past, I.P. and magnetometer surveys were run over the property by Vanco in the search for porphyry copper mineralization. The results of the work are not at hand however some discussion of the results is available.

The Vanco magnetometer work has been superseded by a more recent survey carried out by Gold Leaf Ventures.

The original discussion regarding the I.P. results over the complex contains some comments of interest. The survey consisted of about 16 line kilometers (10 line miles) of survey run by M^CPhar Geophysics. This covered the northern half of the complex. The only significant anomalous area was over the Main Rhyolite Breccia Zone reflecting its higher sulphide content. Some other lower order anomalies are reported over the northwest portion of the complex and adjoining volcanics. In the M^CPhar report these anomalous areas are considered to represent narrow sources and were dismissed at the time as being of little interest in porphyry copper exploration. In terms of the present search for gold deposits, these narrow zones may well represent shear zones which could be of interest. Since the I.P. maps are not part of the present data package, the exact location of these zones is not known. An attempt should be made to locate this information in the Esso files.

During 1988, new magnetometer and VLF-EM surveys were completed over the new grid and the results are presented in Figures 4 and 5. The magnetometer used was a Syntrex MP-2 system and the VLF-EM was run with an EM-16 unit.

The results of the magnetometer survey are not too informative, at least not in the search for gold deposits. In general, the Lois complex shows little magnetic relief except for a couple of spot highs. The exception to this is again in the far west of the grid. Here a series of irregular high features suggest, along with the nickel, vanadium and chromium geochemistry, that the geology may be more complex in this area than indicated by the geological mapping.

The VLF-EM, shown as a contour plot on Figure 5, also suggests some complexity in this western portion of the grid. Like the magnetometer results, the EM trends indicate the possibility of northerly trending structures or lithologies in this area.

10:0 MINERALIZATION AND ECONOMIC POTENTIAL

The Lois Complex is essentially a failed porphyry system which contains sub-economic copper mineralization in certain areas in association with weak molybdenite and, in one instance, visible gold. Sparce galena and sphalerite have also been noted in places.

Within the complex, significant amounts of economic minerals have been noted in two areas. One of these was in a small body of andesite porphyry exposed in a small north-flowing stream to the west of the main rhyolite breccias. This andesite porphyry was not delineated in the 1988 mapping but it is about 60 meters in diameter. Sampling of this body by Rio Tinto returned 0.15% copper across 60 meters (200 feet). Vanco results were somewhat lower. The rock contains two to three percent arsenopyrite in grains up to about 4mm size. Chalcopyrite is commonly associated with the arsenopyrite. Similar mineralization is present, but weaker, in the surrounding quartz diorite.

A single hole was drilled in this zone by Esso Minerals in 1977. The collar was located 60 feet south of Line 28 South and 1230 feet East of the baseline on the Vanco grid. This hole cut some low grade copper values and one intersection contained visible gold. This intersection is described in the drill log as: "2.25 feet quartz at 45° well fractured and filled with bornite, chalcopyrite, traces of visible gold". At that time assays were not required in recording drilling for assessment work and none are reported for this hole.

The other area within the complex where economic minerals have been noted is in the main rhyolite breccia. This area contains the highest levels of sulphide mineralization in the complex. Sulphides are mainly disseminated through the breccia, with minor amounts occurring on fractures. Most of the breccia would carry from two to five percent pyrite. Arsenopyrite

is also common in amounts up to two to three percent. Disseminated black sphalerite is widely distributed in small amounts. The best area was visually estimated by the writer at 9 meters (30 feet) of 0.5 percent zinc. Chalcopyrite is erratic but widespread. Of several samples taken in previous work, none graded better than 0.05 copper. This is in line with visual estimates for the best areas seen. Galena is present in trace amounts.

Sulphide deposition in the breccia seems to have been a fairly late event, since dykes cutting the breccia are as well mineralized as the breccia itself.

Peripheral zones around the complex perhaps have the best chance of hosting precious metal values. The most promising of these peripheral zones is the south rhyolite breccia body previously described. This zone, as previously noted returned a sample running 8.6 gms/tn across 3 meters. Although sampling by Gold Leaf Ventures in 1988 did not reproduce this value it is not certain that the same area was re-sampled. Further work is required to test this well altered and silicified breccia body.

Also, outside the margin of the complex proper, Vanco prospectors located a zinc vein in a 9 meter (30 foot) rhyolite dyke cutting volcanics at about 16 South, 1900 West on the Vanco grid. Here sphalerite with minor galena is erratically concentrated in the central meter or so of the rhyolite dyke which strikes about N40°E and dips about 55 to 60° SE. A small pit about 10 meters southeast of this exposure shows small pods of chalcopyrite with finely disseminated magnetite in black fine grained basalts. This mineralization occurs around rusty southeasterly trending fractures. No significant work has been carried out in this area and the gold content is unknown.

In addition, a few small mineralized zones occur around dykes and fractures along the westerly side of the stock. These zones often contain narrow

coarse aggregations of galena, sphalerite, magnetite, pyrite and locally, pyrrhotite. The iron minerals are usually finely disseminated, erratic and are most often masked by narrow gossans. The mineralization would appear to be related to a system of fractures and faults which strike northeasterly along the northwestern edge of the intrusive complex.

None of these peripheral areas have been opened up or adequately tested for precious metals. The potential remains good to discover more such areas of interest since the previous porphyry copper exploration concentrated on the intrusive complex itself and did not stress the peripheral areas.

11:0 RECOMMENDATIONS

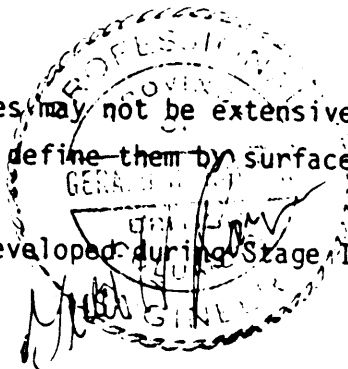
The first stage in further evaluation of the property is the detailed follow-up of data compiled to date, in particular, the geochemical gold values in soil. These results should be better defined by detailed prospecting, hand trenching and close attention to likely looking float-- particularly silicified material. Local additions to the soil sample grid should be considered to cover the South Breccia and to close off anomalous areas to the north and northeast.

All mineralized or silicified sites known from previous programs should be sampled for gold and should be properly located and tied to the present grid. (Note that many sites discussed in Section 10 are not located on Figure 3.)

The South Breccia should be mapped and sampled in detail. The previously sampled area that ran 8.6 gm/tn Au over 3 meters should be confirmed, if possible.

Since the bedrock target zones may not be extensive, every effort should be made to locate or closely define them by surface work before drilling.

As a second stage, targets developed during Stage I should be diamond drilled.



13:0 REFERENCES

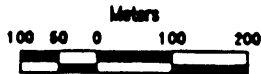
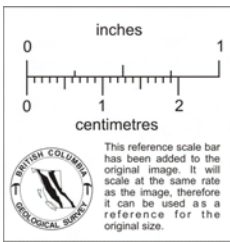
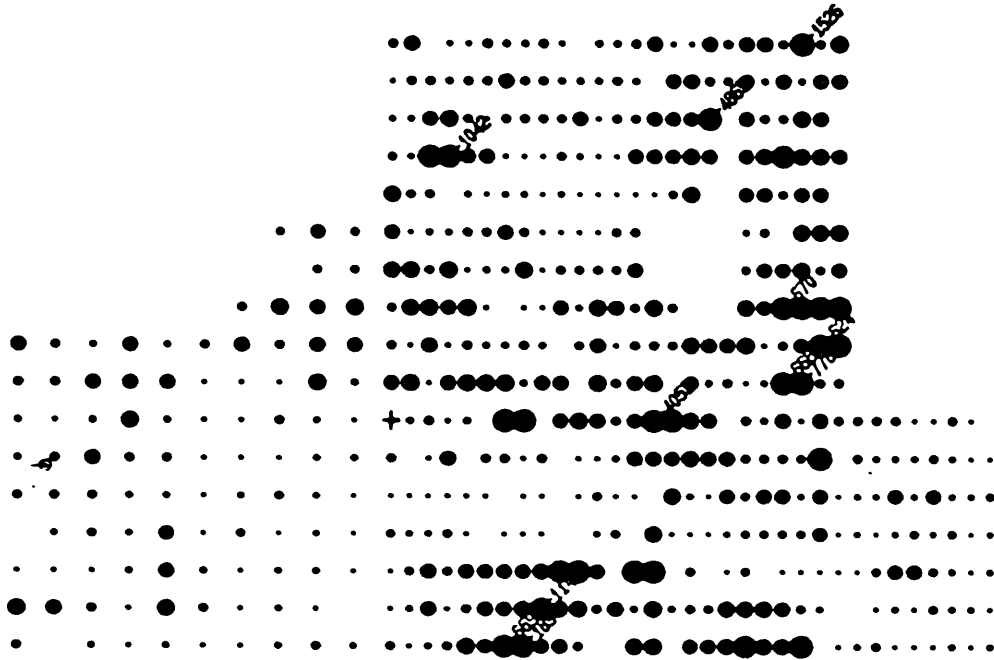
- Carson, D.J.T.; "Tertiary Mineral Deposits of Vancouver Island",
C.I.M. Transactions, 1969, Vol LXXII, pp.116-125.
- Hoadley, J.W.;, 1953. Geology and Mineral Deposits of the Zeballos-
Nimpkish Area, Vancouver Island; G.S.C. Memoir #272.
- Lisle, T.E.; 1970. Preliminary Report on the Lois Group of Mineral
Claims Situated in the Nanaimo and Alberni Mining Divisions,
Vanco Explorations Ltd. (N.P.L.), Company Report.
- Lisle, T.E.; 1979. Report on the Lois Group of Mineral Claims,
Nanaimo and Alberni Mining Divisions, Northwestern Vancouver
Island B.C., Vanco Explorations Ltd. (N.P.L.), Company Report.
- Lisle, T.E.; 1971. Report on the 1971 Prospecting Program in the
Immediate Area of the Tent and Lois Claim Groups, Nanaimo Mining
Division, Vanco Explorations Ltd. (N.P.L.), Company Report.
- Northcote, K.E.; 1968. Lode Metals in B.C., B.C. Department of Mines
and Petroleum Resources, pp. 84-89.
- Rayner, G.H.; 1974. "Property Examination Report, Lois Mineral Claims,
Brooks Peninsula Area, Vancouver Island, B.C." Private Company
Report for Esso Minerals.
- Somerville, R; 1977. Diamond Drill Report on the Lois Mineral Claims.
B.C. Department of Mines Assessment Report No. 6024.
- Various company maps and data.

8000 E

9000 E

7000 N

6000 N



- > 600
- ≤ 600
- ≤ 400
- ≤ 200
- ≤ 100
- ≤ 50
- ≤ 25
- ≤ 25

ARSENIC (ppm)

LOIS GROUP
 BROOKS PENINSULA - VANCOUVER ISLAND
 1988 SOIL GEOCHEMISTRY

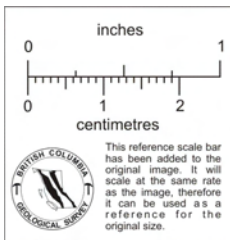
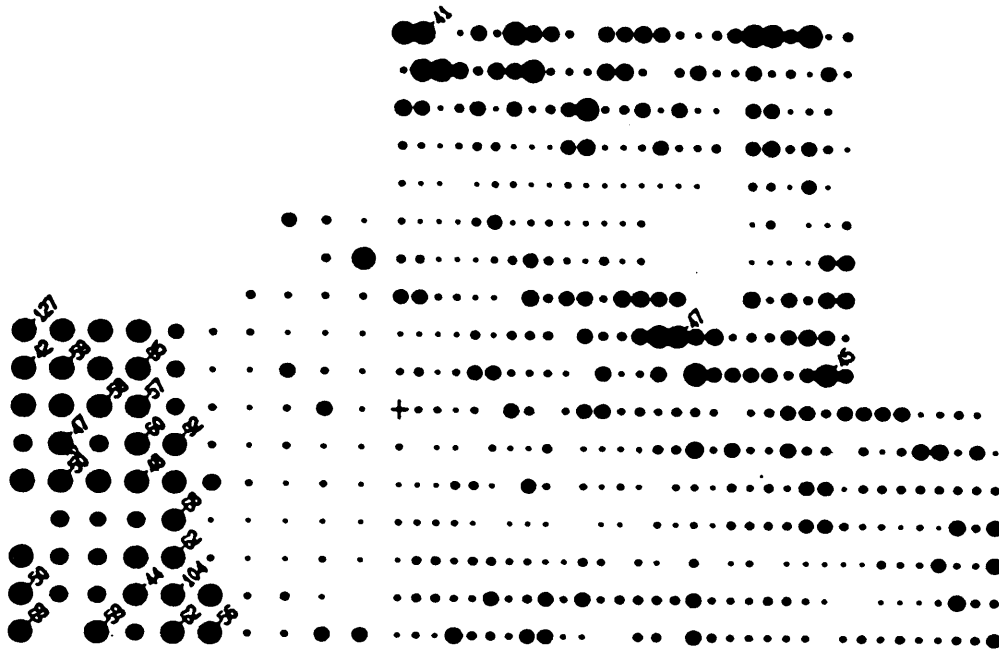
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Date	JULY 1988	Report No.	Fig. No.	6

GOLD LEAF VENTURES INC.

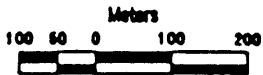
8000 E

9000 E

7000 N



6000 N



- > 40
- 25 < <= 40
- 15 < <= 25
- 10 < <= 15
- 7 < <= 10
- 4 < <= 7
- 0 < <= 4

CHROMIUM (ppm)

LOIS GROUP
 BROOKS PENINSULA - VANCOUVER ISLAND
 1988 SOIL GEOCHEMISTRY

Project No.	NTS 92L/5E	Scale 1:10000
Date JULY 1988	Report No.	Fig. No. 7

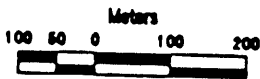
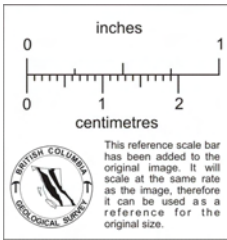
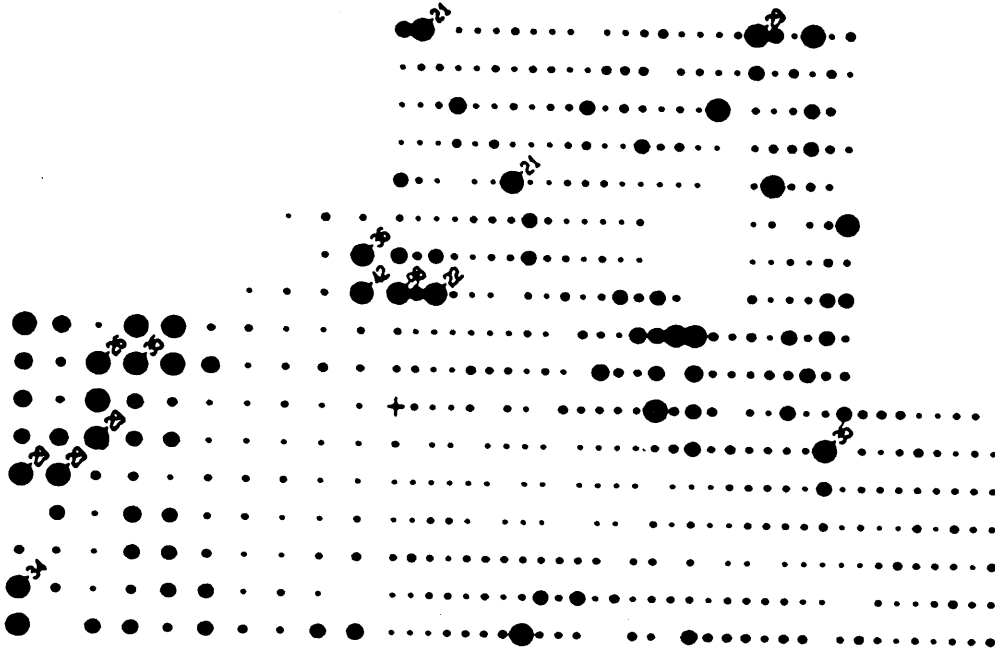
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



- > 20
- ≤ 20
- ≤ 15
- ≤ 10
- ≤ 6
- ≤ 4
- ≤ 2

COBALT (ppm)

LOIS GROUP
BROOKS PENINSULA - VANCOUVER ISLAND
1988 SOIL GEOCHEMISTRY

Project No.	NTS 92L/5E	Scale 1:10000
Date JULY 1988	Report No.	Fig. No. 8

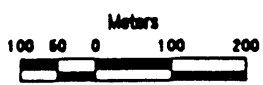
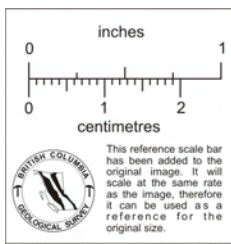
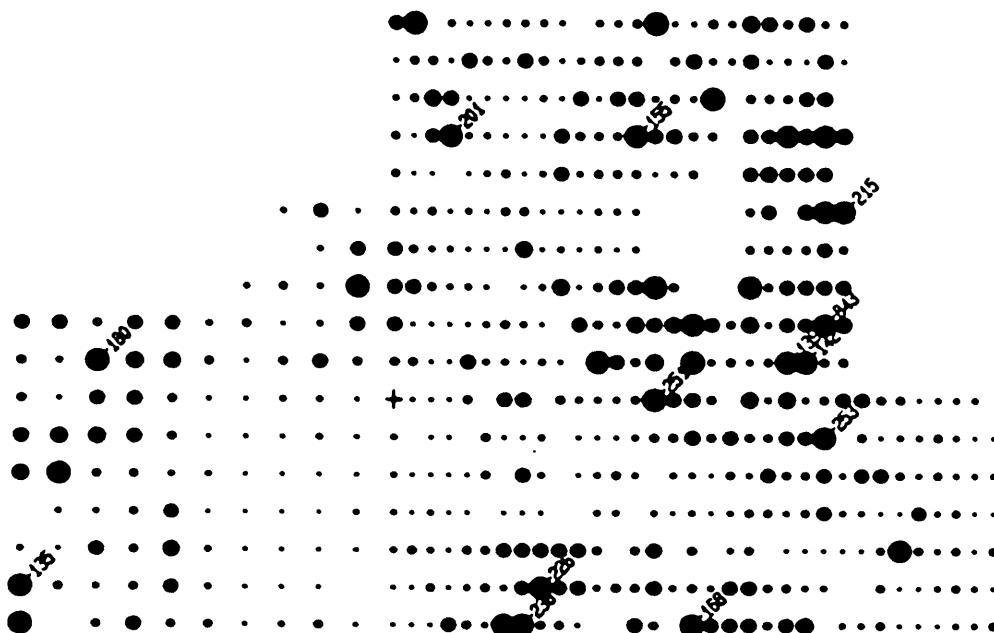
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



- > 130
- ≤ 130
- ≤ 90
- ≤ 60
- ≤ 30
- ≤ 15
- ≤ 8

COPPER (ppm)

LOIS GROUP
 BROOKS PENINSULA - VANCOUVER ISLAND
 1988 SOIL GEOCHEMISTRY

Project No.	NTS 92L/5E	Scale 1:10000
Date JULY 1988	Report No.	Fig. No. 9

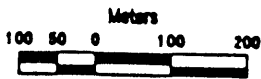
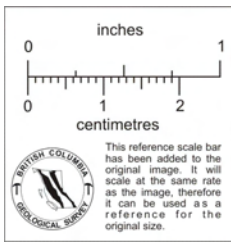
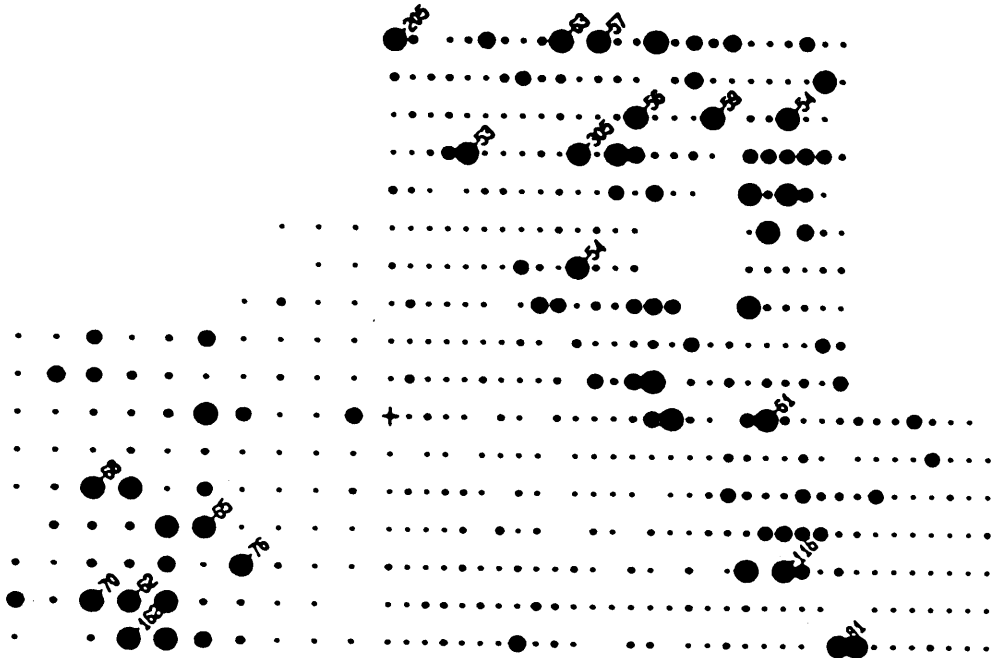
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



- > 50
- ≤ 50
- ≤ 20
- ≤ 15
- ≤ 10
- ≤ 6
- ≤ 2

GOLD (ppb)		
LOIS GROUP		
BROOKS PENINSULA - VANCOUVER ISLAND		
1988 SOIL GEOCHEMISTRY		
Project No.	NTS 92L/5E	Scale 1:10000
Date JULY 1988	Report No.	Fig. No. 10

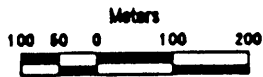
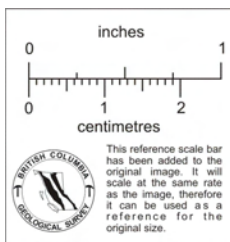
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



- > 30
- 20 < <= 30
- 14 < <= 20
- 11 < <= 14
- 8 < <= 11
- 5 < <= 8
- 0 < <= 5

LEAD (ppm)

LOIS GROUP
BROOKS PENINSULA - VANCOUVER ISLAND
1988 SOIL GEOCHEMISTRY

Project No.	NTS 92L/SE	Scale 1:10000
Date JULY 1988	Report No.	Fig. No. 11

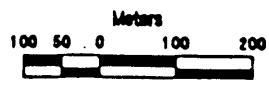
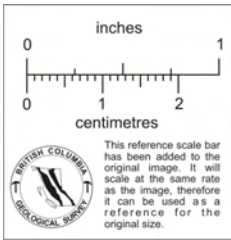
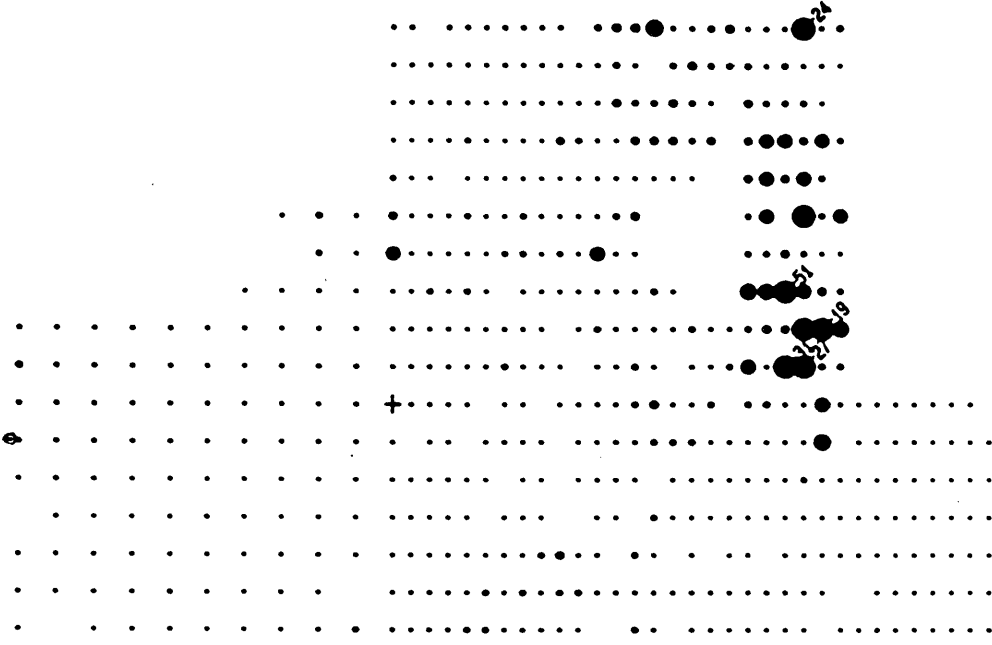
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



- > 12
- ≤ 12
- ≤ 10
- ≤ 8
- ≤ 6
- ≤ 4
- ≤ 2

MOLYBDENUM (ppm)

LOIS GROUP
 BROOKS PENINSULA - VANCOUVER ISLAND
 1988 SOIL GEOCHEMISTRY

Project No.	NTS	Scale
Date	92L/5E	1:10000
JULY 1988	Report No.	Fig. No.
		12

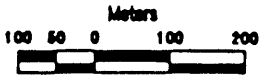
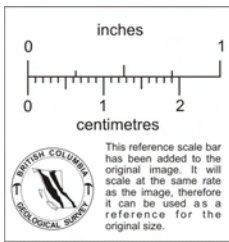
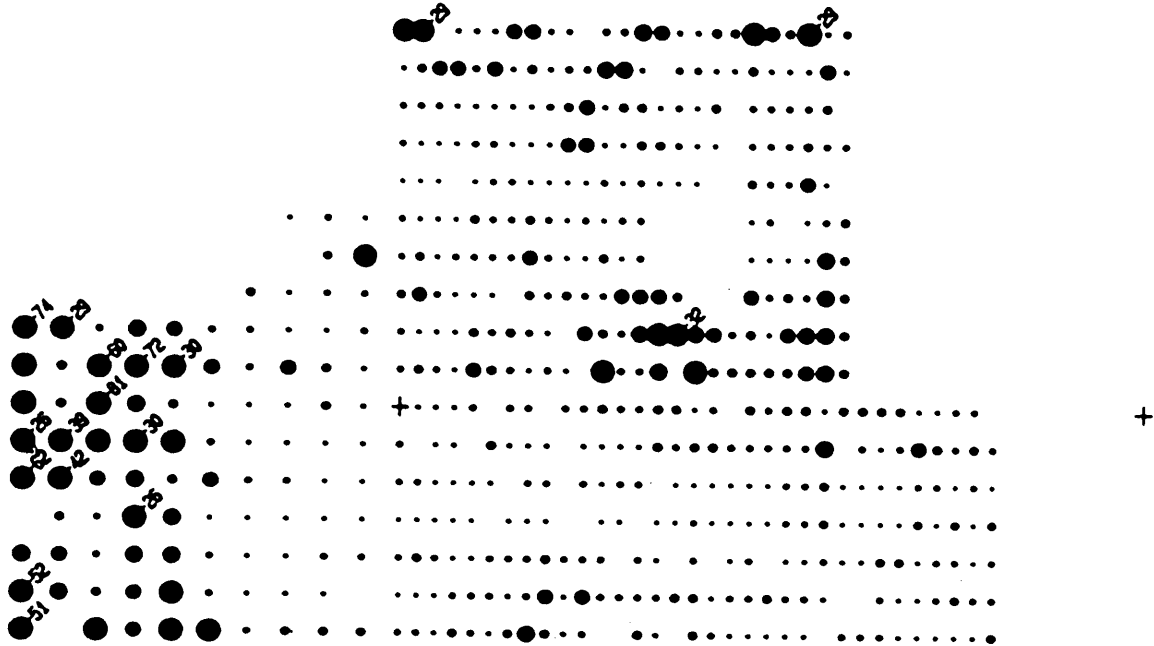
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



- > 25
- 15 < <= 25
- 10 < <= 15
- 7 < <= 10
- 4 < <= 7
- 2 < <= 4
- 0 < <= 2

NICKEL (ppm)

LOIS GROUP
 BROOKS PENINSULA - VANCOUVER ISLAND
 1988 SOIL GEOCHEMISTRY

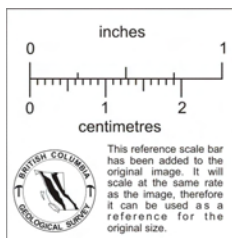
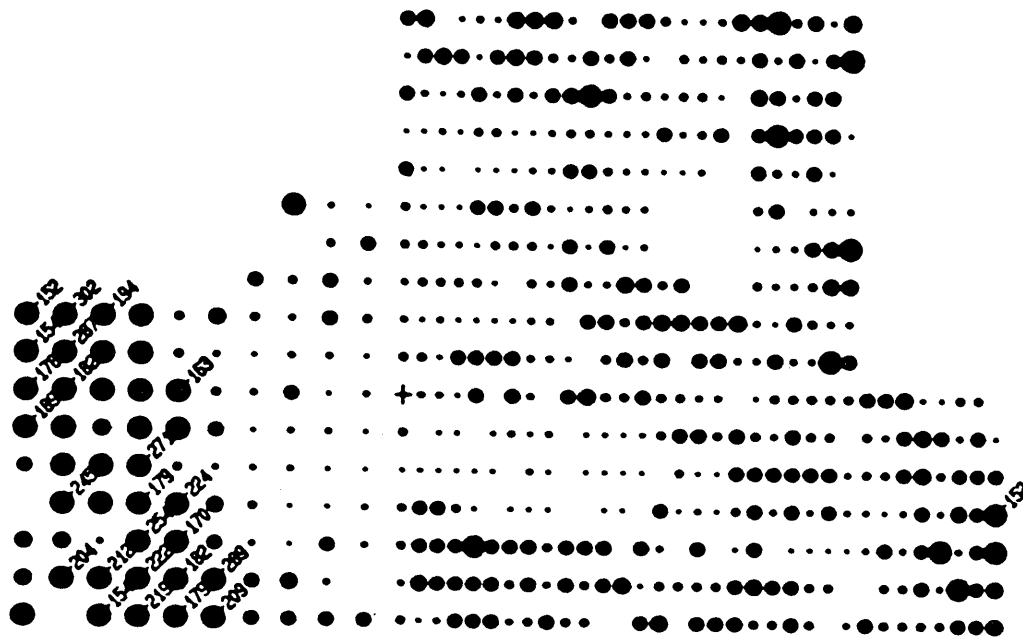
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JULY 1988	Report No.	Fig. No.
		13

GOLD LEAF VENTURES INC.

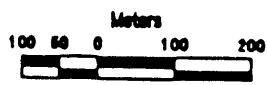
8000 E

9000 E

7000 N



6000 N



- > 150
- ≤ 150
- ≤ 100
- ≤ 75
- ≤ 50
- ≤ 40
- ≤ 25

VANADIUM (ppm)

LOIS GROUP
 BROOKS PENINSULA - VANCOUVER ISLAND
 1988 SOIL GEOCHEMISTRY

Project No.	NTS	Scale
	92L/5E	1:10000
Date	Report No.	Fig. No.
JULY 1988		15

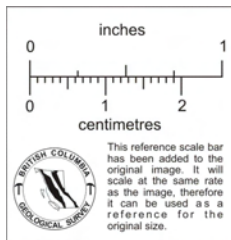
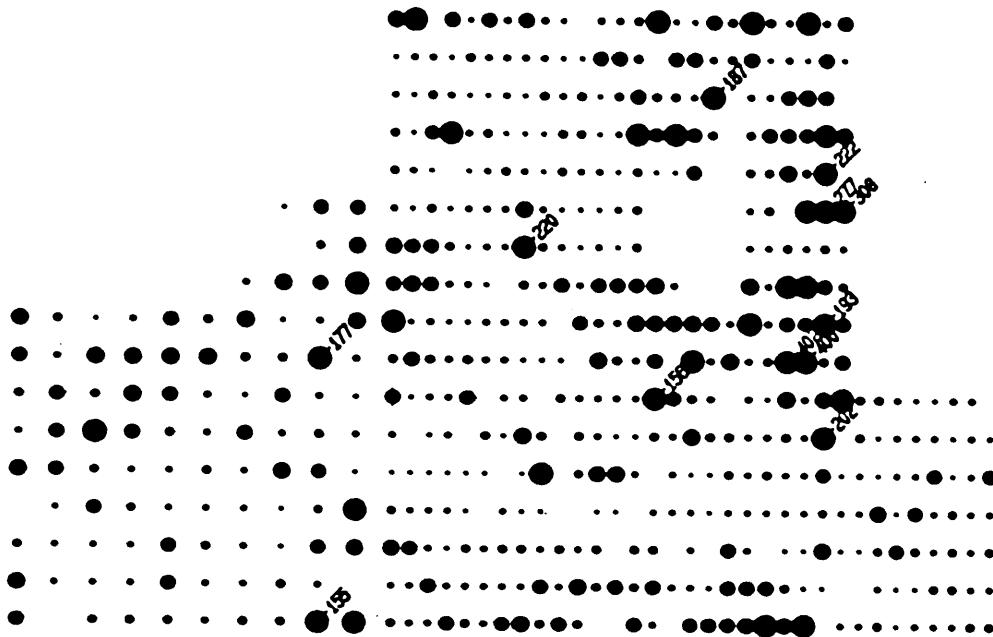
GOLD LEAF VENTURES INC.

8000 E

9000 E

7000 N

6000 N



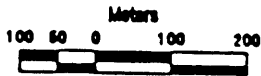
+

+

ZINC (ppm)

LOIS GROUP
BROOKS PENINSULA - VANCOUVER ISLAND
1988 SOIL GEOCHEMISTRY

- > 150
- ≤ 150
- ≤ 110
- ≤ 75
- ≤ 50
- ≤ 35
- ≤ 20



Project No.	NTS 92L/5E	Scale 1:10000
Date JULY 1988	Report No.	Fig. No. 16

GOLD LEAF VENTURES INC.