

REPORT ON THE SOL GOLD PROPERTY

Graham Island, Queen Charlotte Islands

Sol #1 - #7 Mineral Claims

Skeena Mining Division

Latitude 53° 23'N, Longitude 132° 25'W

NTS 103F/7E & 8W

Prepared for: Mr. Sam Courte

by

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March 24, 1997

MINERAL CLAIMS REVIEW BOARD
SKEENA DIVISION

24,981

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1.0 INTRODUCTION

1.1 Location and Access

The Sol property is located on the southwest coast of Graham Island, Queen Charlotte Islands, British Columbia, north of the head of Rennell Sound on NTS map sheets 103F/7E & 8W, 30 kilometres northwest of Queen Charlotte City (see Figure 1).

The property is readily accessible by private logging roads connecting with Queen Charlotte City and Port Clements. Travel distances from these two points to the property are about 35 and 60 kilometres respectively. A system of subsidiary logging roads provide good access to most parts of the property.

Helicopter access to the property is available from Sandspit on Moresby Island. Round trip ferry time is .7 hours by Bell Jet Ranger 206B.

1.2 Mineral Claims

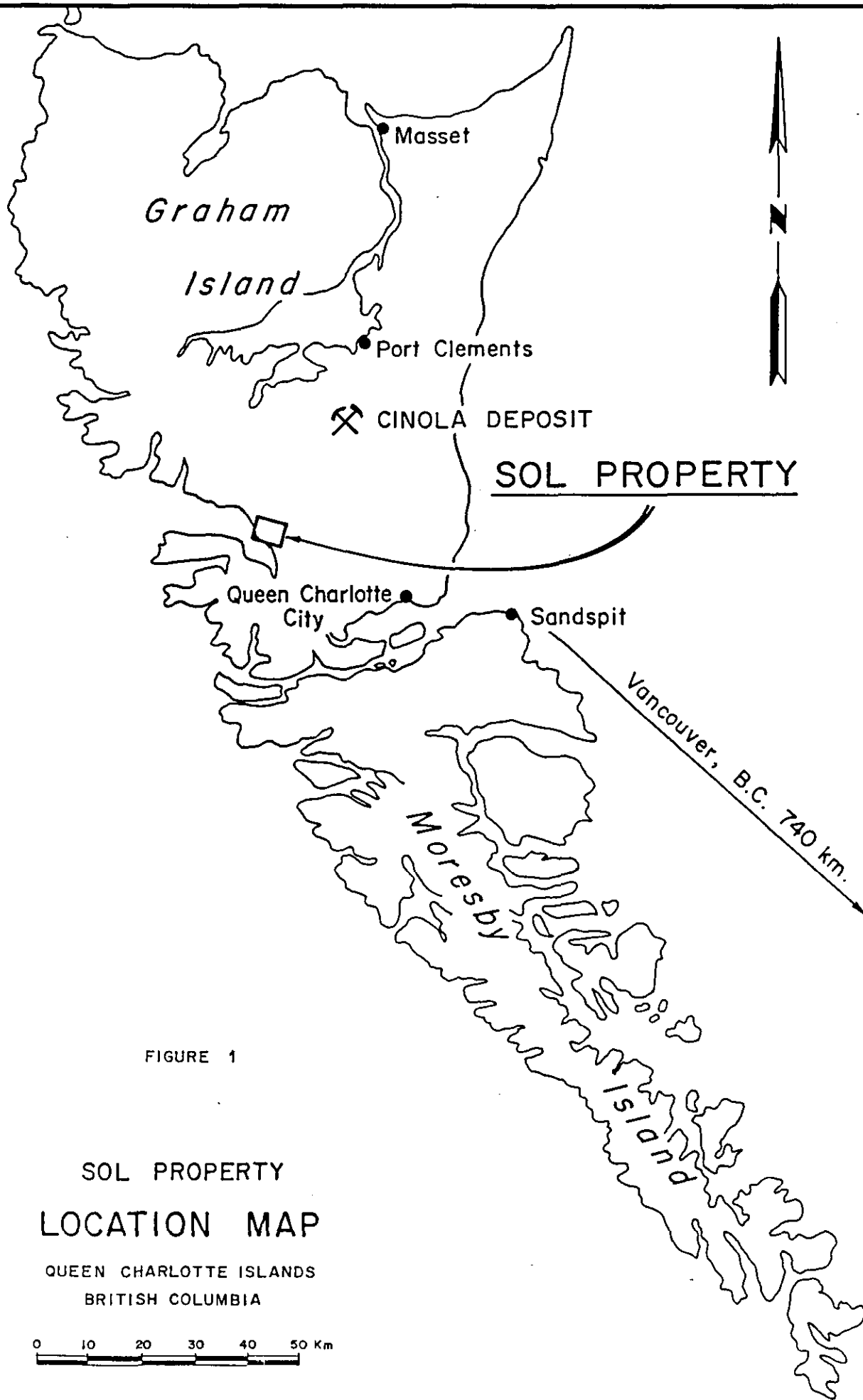
The property consists of the following mineral claims:

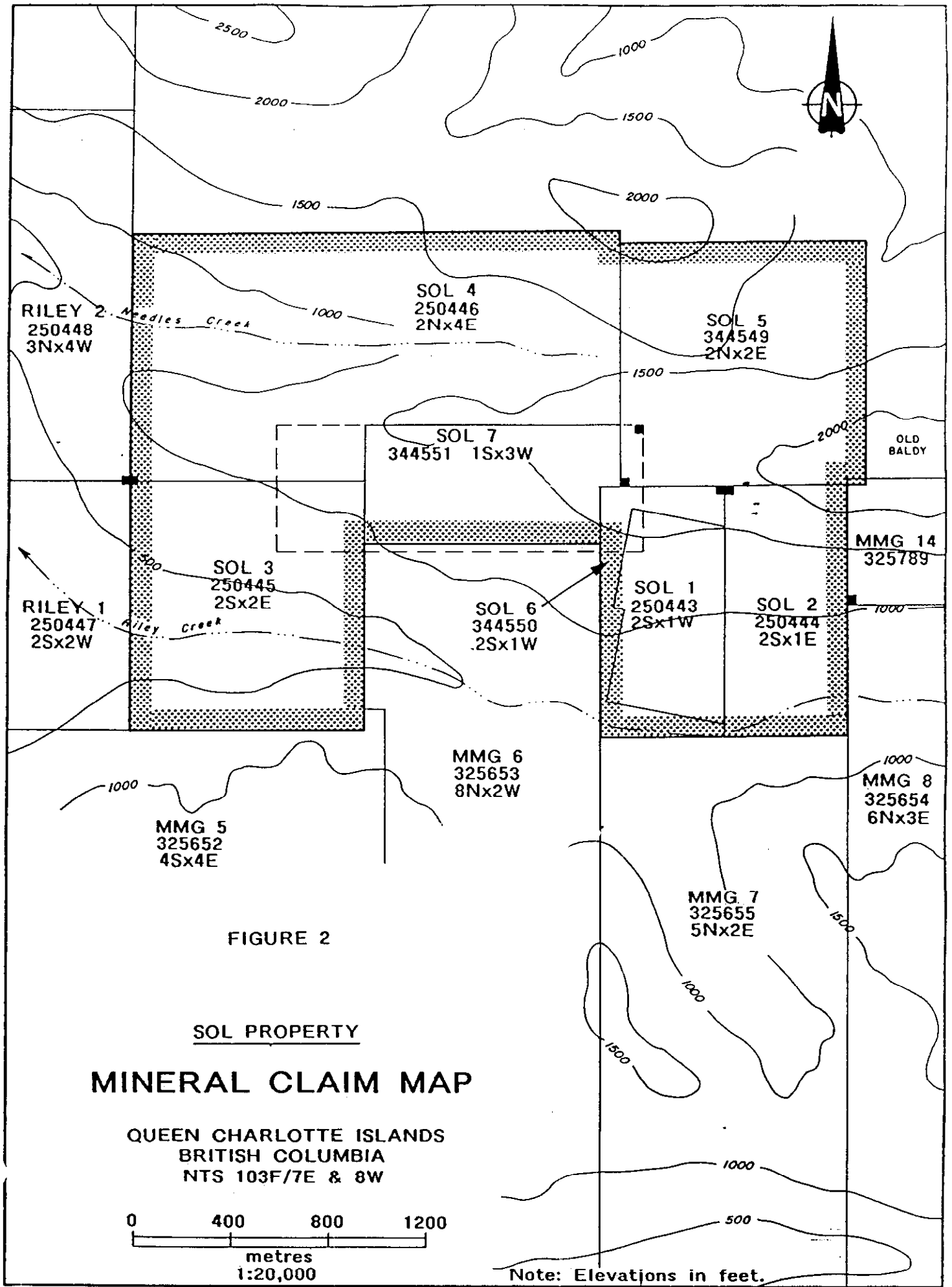
TABLE 1

Mineral Claim Data

<u>Claim Name</u>	<u>No. of Units</u>	<u>Tenure Number</u>	<u>Record Date</u>	<u>Year of Expiry</u>
Sol 1	2	250443	Sep. 16, 1977	1999
Sol 2	2	250444	Sep. 16, 1977	1999
Sol 3	4	250445	Oct. 3, 1977	1999
Sol 4	8	250446	Oct. 3, 1977	1999
Sol 5	4	344549	Mar. 25, 1976	1999
Sol 6	2	344550	Mar. 26, 1976	1999
Sol 7	3	344551	Mar. 26, 1976	1999
Total Units	25			

The Sol #1 - #7 mineral claims are 100% owned by Sam Courte of Powell River, B.C. Together, the claims cover an area of about 515 hectares or about 1,260 acres (see Figure 2).





1.3 Topography, Climate and Vegetation

The claims occupy a steep, heavily forested ridge which separates Riley and Needles creeks. Outcrop is relatively abundant, especially in tributary creeks draining the ridge and in the main creeks. Elevations range from 100 metres in Riley Creek to about 700 metres on the ridge at the eastern property boundary.

The climate is typical of West Coast rain forest, with a yearly precipitation (mainly during September to May) of about 400 centimetres. Freezing temperatures and short-lived snows are possible from November to April.

The ridge and Needles Creek valley are covered with a fairly dense hemlock-spruce-cedar forest. Clear-cut blocks occupy most of Riley Creek's valley bottom and the valley's bottom slopes.

1.4 History and Development

Earliest known work in the Riley Creek valley was by prospectors Victor Courte and Robert Mickle who first staked the Courte Au-Sb prospect in 1948. The two men intermittently held claims in the area during the period 1948-63. Claims held continuously by them from 1964-77 were abandoned and relocated in 1977 by JMT Services Corp. The relocated claims form the basis for the current property definition, along with the recently located Sol #5 - #7 mineral claims. Courte, Mickle and JMT Services Corp. estimated that they have incurred expenditures in excess of \$60,000 in order to maintain the current Sol property claims (and earlier claims) in good standing over the years.

Recent work history commenced in 1974 when Quintana Minerals Ltd. completed geochemical and geological surveys on the Courte Zone. JMT Services Corp. optioned the Courte Zone claims in 1977 and assigned part interest to Chevron Canada Limited. Discovery of the Gumbo zone and the Branch 8 zone resulted from work of JMT Services Corp. Geological and geochemical surveys by JMT for Chevron in 1977 and 1978 were followed up by drilling in 1979-81 before Chevron terminated their option in 1983. Drilling by Chevron on Sol property claims totalled 1,803 metres in 12 holes.

Umex located claims to the east and west of the Courte showing in 1977, and by 1981 had completed geological, geochemical and airborne geophysical surveys and six short diamond drill holes on their property.

In 1985, a joint venture between Noranda Exploration Company Limited, Umex Inc. and Noramex Minerals Inc. acquired by option and staking the minerals rights to a contiguous group of 147 2-Post and Modified Grid claim units (including the current Sol property) which covered a 15 kilometre-long alteration/mineralization trend. Late in 1985, the Joint Venture re-established and soil-sampled a grid over the Courte area and

re-logged all but one of the previous drill holes within and adjacent to the Sol property in order to establish a consistent field rock nomenclature across drilled portions of the above trend.

In August/September 1986, the Joint Venture carried out further grid extensions, soil geochemistry, geological mapping and induced polarization and magnetometer surveys. This work was designed primarily to provide diamond drill targets in the Courte Zone and on the adjacent Stib claim to be southeast. Diamond drilling completed on the Courte Zone during October/November 1986 totalled 682 metres in 2 holes.

2.0. GEOLOGY AND MINERALIZATION

2.1 Regional Setting

Regional mapping in the Rennell Sound area by Sutherland Brown, 1968, B.C. Department of Mines Bulletin #54, is depicted in Figure 3. The Sol property is underlain by volcanic and sedimentary strata of the Jurassic Yakoun Formation which have been intruded by a number of dacitic feldspar porphyry dikes of possible Tertiary age. The dikes occur along a major WNW-trending fault system which is part of the Rennell-Louscoone Fault Zone of Sutherland Brown (1968). They are considered to have a genetic relationship with known alteration and mineralization in the Riley Creek area.

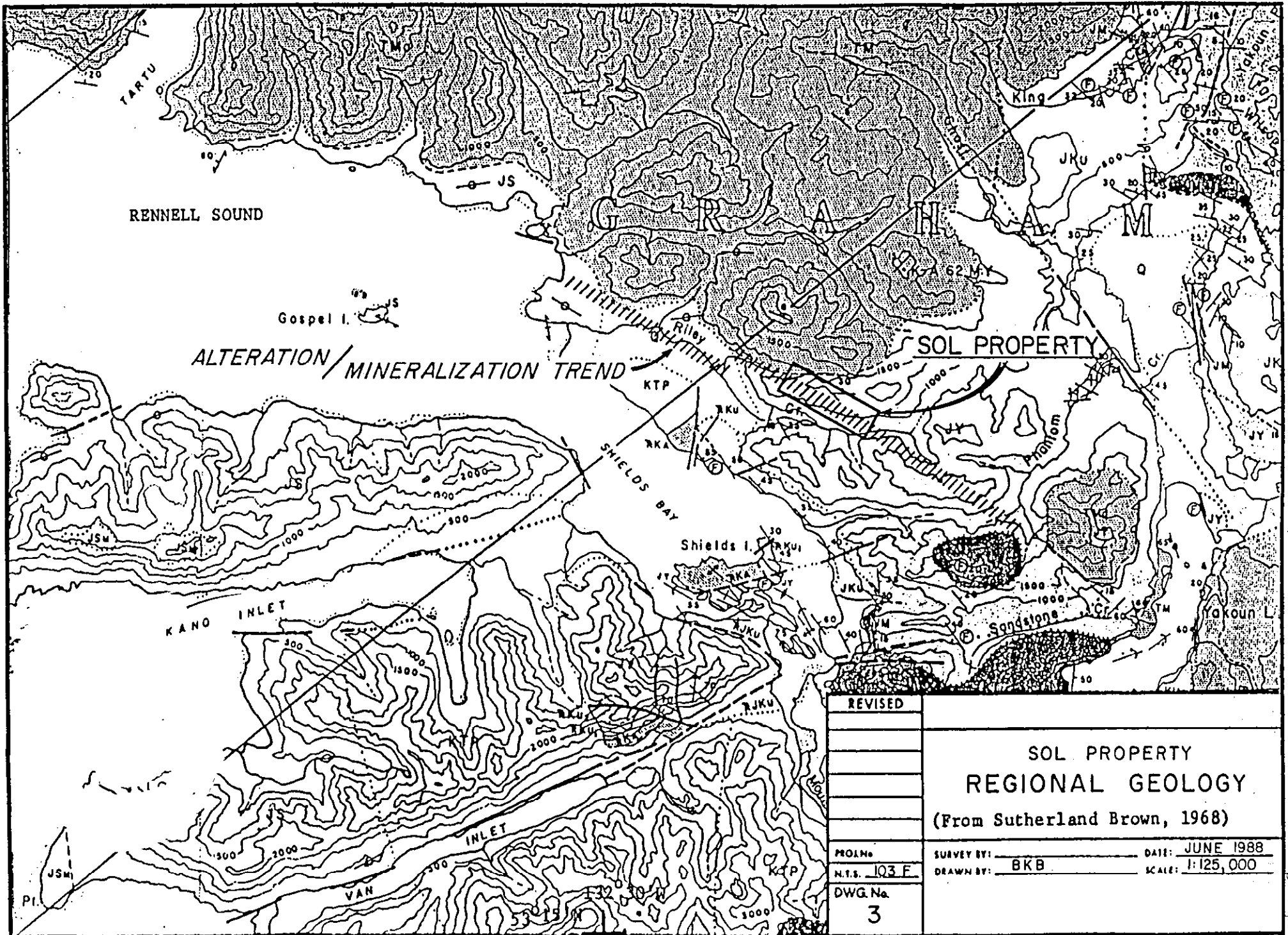
The Yakoun Formation is underlain by limy argillites of the Upper Triassic Kunga formation exposed off the property along Shields Bay. Overlying the Yakoun Formation, to the north, are volcanic flows and tuffs of Tertiary Masset Formation.

Mesozoic strata have been intruded by Jurassic and Cretaceous age plutons which range from diorite to quartz monzonite in composition. The plutons are exposed along lower Riley Creek and the coast, at the mouth of Riley Creek.

The primary exploration targets are areas of Au-Sb-As-Hg mineralization and associated hydrothermal alteration, veining, faulting, feldspar porphyry dikeing and anomalous soil geochemistry (Au, As, Hg) that lie along the WNW-trending fault zone. The geological environment is indicative of an epithermal Au system.

2.2 Sol Property

Three known zones of interest within the above permissive trend are located on the Sol property. They are the Courte, Gumbo and Branch 8 Zones, shown on Figure 4. Each is discussed separately below.



REVISED

SOL PROPERTY
REGIONAL GEOLOGY
(From Sutherland Brown, 1968)

PROJ. No.
N.T.S. 103 F
DWG. No.
3

SURVEY BY: _____ DATE: JUNE 1988
DRAWN BY: BKB SCALE: 1:125,000

TABLE 2

LEGEND FOR FIGURE 3

REGIONAL GEOLOGY

(from Sutherland Brown, 1968)

Q	Quaternary alluvium and till.
TM	Tertiary (Paleocene-Eocene) Masset Formation: Subaerial basalt, dacite, rhyolite flows and tephra (TMa,b,e,) Hypabyssal equivalents (TMd,e).
KTP	Cretaceous-Tertiary Post-tectonic Plutons: quartz monzonite; granodiorite; quartz diorite.
KHo	Cretaceous Honna Formation: conglomerate.
KHa	Cretaceous Haida Formation: siltstone; greywacke; conglomerate.
JS	Jurassic (?) Syn-tectonic Plutons: hornblende diorite; quartz diorite.
JSm	Jurassic (?) Migmatite: mixed hornblende diorite and amphibolite.
JY	Jurassic Yakoun Formation: porphyritic andesite agglomerate and flows; lapilli tuff; volcanic sandstone and conglomerate; tuffaceous shale; coal.
JM	Jurassic Maude Formation: argillite; shale; siltstone.
TrJKu	Jurassic and Triassic Kunga Formation: limestone; argillite (includes JKu; TrKu; TrKul; TrKu2).
TrKa	Triassic Karmutsen Formation: Basalt flows; pillow lavas; tuffs; interlava sedimentary rocks.

2.2.1 Courte Zone

Yakoun volcanic rocks underlying the Courte Zone are dominantly andesitic pyroclastics and flows. Tertiary (?) feldspar porphyry dikes have been intersected in several of the drill holes and also crop out in Sol Creek. Their emplacement has been controlled by a major WNW-trending fault zone which arrears to dip near vertically. Width of the fault zone is about 100 metres where it is cut by drill hole 81C-9. Subsidiary, sub-parallel structures are also present in the area.

The most prominent alteration features are zones of intense pervasive sericite-clay-carbonate-minor silica that are associated with fault zones and feldspar porphyry dikes. Width of the altered zones vary from a few 10's of metres to greater than 70 metres. Disseminated and vein carbonate is common in some of the altered zones and in many otherwise unaltered Yakoun outcrops. The abundance of carbonate in this and other areas on the Sol property may be an expression of mobilization of the limy fraction of underlying Kunga Formation. Thus, the Kunga Formation, an ideal host for Carlin-type gold deposits, may underlie, at moderate depths, some of the anomalous gold areas.

In order of decreasing abundance, observed sulphide minerals present in the alteration zones include pyrite, stibnite, arsenopyrite and rare chalcopyrite and sphalerite. Significant amounts of Au have been reported by previous workers along the main fault structure. Quintana (1974) chip sampled a 95 metre continuous exposure in Sol Creek and reported values of 0.04 ounces Au per tonne and 0.4% Sb. Chevron (1981), in 81-C-9, intersected 3 metres of 0.122 ounces Au per tonne approximately 120 metres vertically below Sol Creek. The Joint Venture, with Noranda as operator, drilled below 81-C-9 and intersected 10 metres of highly anomalous gold geochemistry about 200 metres vertically below Sol Creek. Across the 10 metre width, values averaged 1.015 grams per tonne, including 0.70 metres grading 3.390 grams per tonne.

A shallow hole (SB1-81), drilled by Umex on the adjacent Stib claim, intersected 10 metres of 0.04 ounces per tonne Au and .23% Sb. The intercept is "on trend" with and 425 metres away from the Au-Sb mineralization exposed in Sol Creek. Other holes in the Courte Zone carry Au in amounts ranging from detectable to greater than 300 ppb over a few to a few 10's of metres.

Grid soil geochemistry, carried out in 1985-86 by the Joint Venture, has delineated a large As anomaly (≥ 100 ppm) which covers an area of about 800 metres by 200-500 metres. The As anomaly is probably reflecting the general distribution of altered and mineralized structures within the Courte Zone area. No Au anomalous areas were detected in the 1985-86 surveys. Results generated by previous workers, however, do show an Au anomaly (≥ 20 ppb) which extends several hundred metres to the WNW, and a lesser distance to the ESE, out from the Courte showings. Based on the earlier results, it would appear that the Courte Zone mineralization may extend a considerable distance further northwest.

Unstaked



SOL PROPERTY BOUNDARY

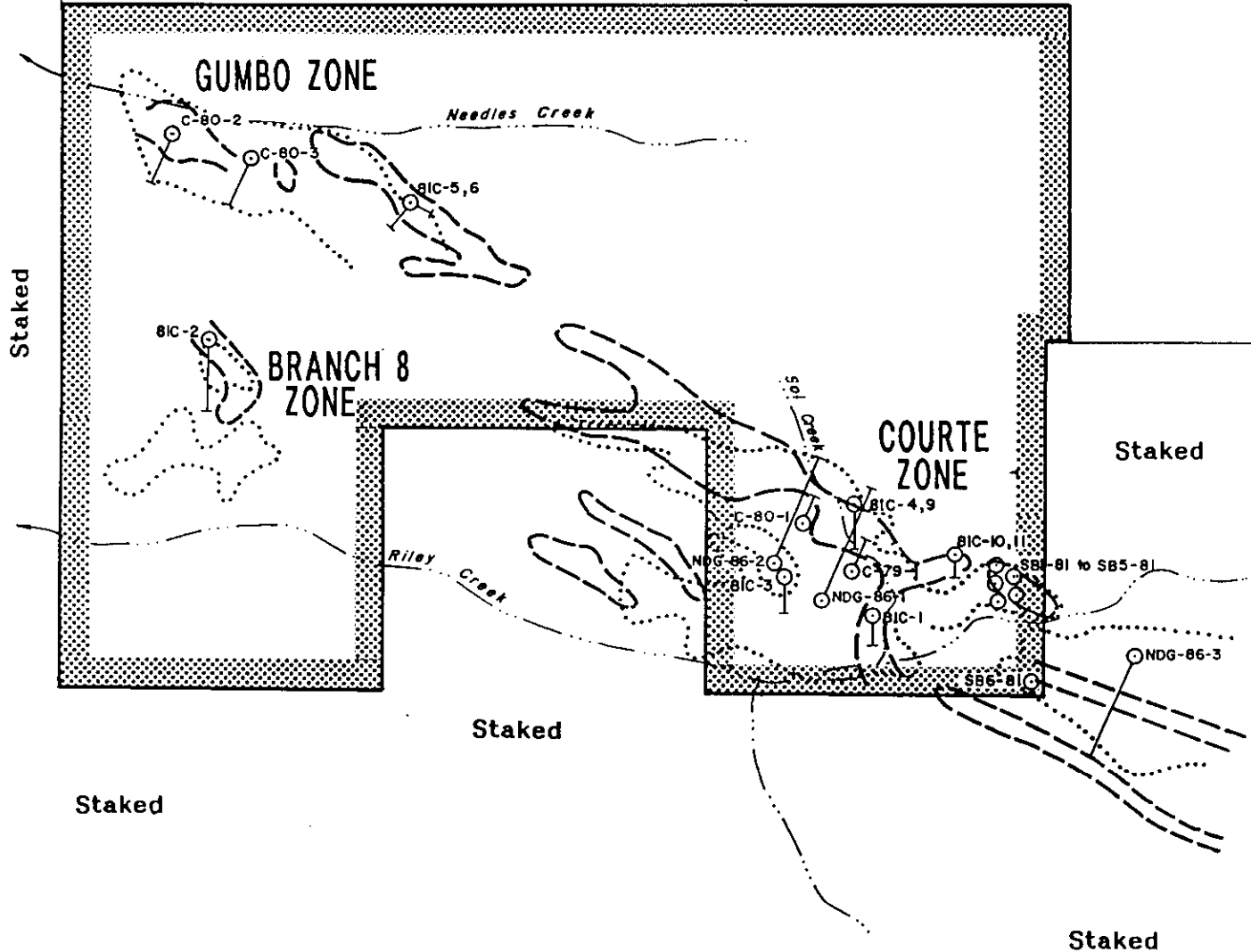
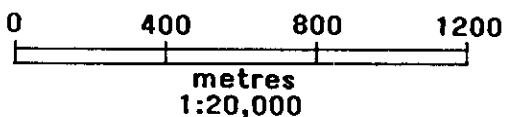


FIGURE 4



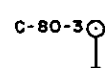
SOL PROPERTY

COMPILATION MAP

QUEEN CHARLOTTE ISLANDS
BRITISH COLUMBIA
NTS 103F/7E & 8W



LEGEND

-  $\geq 20\text{ppb Au}$ in soils
-  $\geq 100\text{ppm As}$ in soils
-  Diamond drill hole & number

2.2.2 Gumbo Zone

Although the Gumbo Zone displays many of the same favourable alteration/mineralization features that are present in the Courte Zone, it has not had systematic grid coverage nor has it been extensively drilled. In 1977-78, JMT Services Corp. undertook reconnaissance-style geological and geochemical surveys followed by wide-spaced diamond drilling in 4 holes by Chevron in 1980-81.

The JMT work generated Au-As soil anomalies over an area of 1300m by 300m. The anomalies are approximately coincident with favourable zones of alteration and mineralization. Despite encouraging geology, no surface rock samples approaching commercial grade were obtained. Rock samples density is low enough that zones of better Au grade could be present at surface, although perhaps not exposed. Several highly anomalous soil values (up to 660 ppb Au) were taken in areas of little outcrop and remain unexplained.

Drilling results, especially from holes C-80-2 and C-80-3, returned encouraging results. In hole C-80-2, many highly anomalous Au results were returned from the lower portion of the hole, particularly from 142m to 178m. High samples include 2650 ppb (142-144m), 2000 ppb (150-152m) and 1400 and 1560 ppb (166-170m). Anomalous As (commonly > 1000 ppm) is highly correlative with Au. The Au-As values are associated with quartz-carbonate-pyrite (+ arsenopyrite) veinlets in minor shears and faults and associated alteration zones within Yakoun volcanics.

Hole C-80-3 was collared 250m ESE of C-80-2. Mineralization is very similar in both style and content to that in hole C-80-2. Anomalous geochemical values for Au occur principally in the intervals from 54-94m and 182-216m, with one very high result (72-74m) being 3300 ppb. Anomalous As is again correlative with high Au.

In the above two holes, alteration is continuous to the bottom of the holes. Since anomalous results were returned near the bottom of the holes, it seem probable that the mineralized system has not been completely depth tested.

Holes 81-C-5 and 81-C-6 show a scattered distribution of low Au and As values throughout.

2.2.3 Branch 8 Zone

The Branch 8 Zone lies about 600 metres south of the Gumbo Zone on Sol 3 mineral claim. A relatively small coincident Au-As soil anomaly received one drill test by Chevron in 1981. Hole 81-C-2 intersected Yakoun volcanics cut by possible feldspar porphyry dikes. Intense clay altered zones are associated with a strong fault from 68-77 metres and with one of the larger dikes. Au and As show a scattered distribution of low values throughout the hole with no noticeable enhancement of values in the stronger

clay-altered zones. Hg values in the altered zones are highly anomalous, with most values greater than 500 ppb and peak values to 5000 ppb.

2.2.4 Geology Summary

Of the three known zones of interest located on the Sol property, the Gumbo Zone remains the most promising target for continued exploration. It displays favourable alteration/mineralization features over a sizeable area, contains several widely-separated, highly anomalous Au soil values that remain unexplained and has had only limited drill testing which returned encouraging Au results.

The ultimate potential of the numerous alteration/mineralization zones on the Sol and adjacent properties may lie at depth. The permissive structure that stretches 15 kilometres through the Phantom and Riley Creek drainages may cut limy argillites of the Kunga Formation that underlie Yakoun volcanics. Such a locus would be an ideal setting for the deposition of Carlin-type gold deposits, In light of some of the successes that have been achieved in the depth testing of Nevada's Carlin trend by American Barrick, Newmont and others, this possibility should not be overlooked.

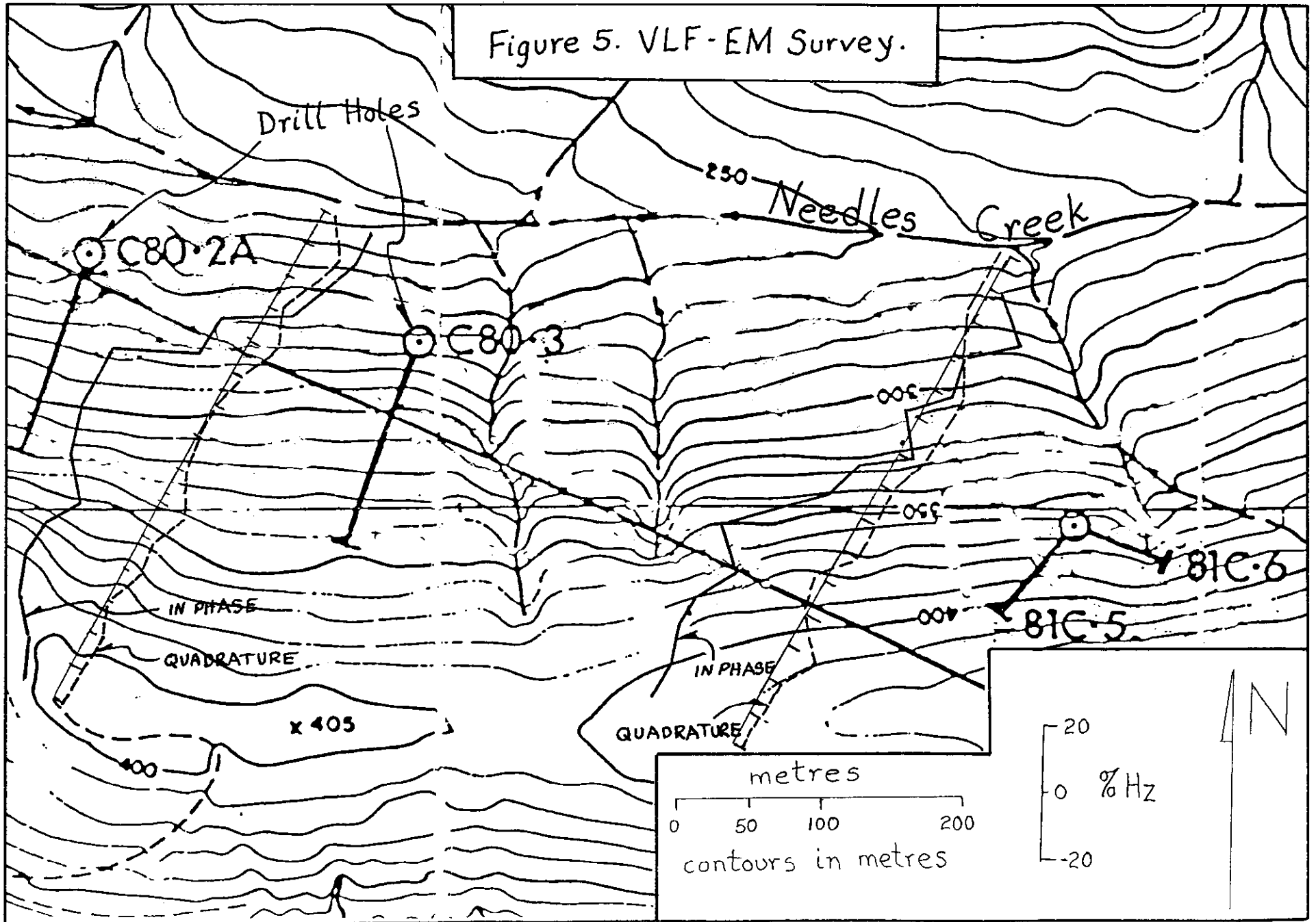
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GEOPHYSICS

A VLF survey was conducted over the Gumbo Zone in an attempt to locate the major structure that has been traced by geological mapping for over 15km of strike length. It was hoped that locating this structure would assist ultimate positioning of drill holes. Gold grades at surface are only weakly anomalous for gold but increase dramatically with depth, within the two drill holes drilled under the Gumbo Zone. Still deeper drilling will attempt to intersect a bonanza-type gold zone possibly lying along the major structure. It is the surface expression at this structure that the VLF survey was designed to locate. It is also possible that skarn mineralization is present within Kunga limy sediments which immediately underly the exposed Yakoun formation rocks. Drilling a deep hole alongside the mineralization-controlling major structure is also an excellent target.

A Geonics EM-16 unit was used in the VLF survey. As much of the former sampling grids were lost, the present survey was tied to diamond drill hole sites with three lines run at 045° between holes C-80-2 and C-80-3 and west of 81C-5, 6, as shown on Figure 5. Readings were taken at 30 metre intervals along these lines. Both in-phase and quadrature were read using the Seattle and Hawaiian stations. Readings at each station were obtained by facing the direction of the transmitting station and turning clockwise 90 degrees. Seattle turned out to be the best station and the results are shown on Figure 5.

Figure 5. VLF-EM Survey.

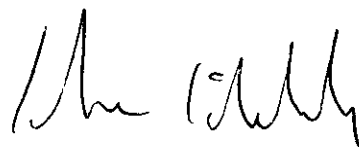


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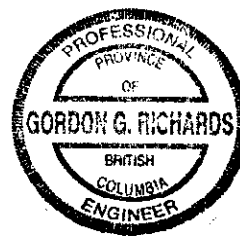
CONCLUSIONS AND RECOMMENDATIONS

Results were encouraging as conductors were located on both lines, fairly close to the drill holes. Location of the crossovers is roughly coincident with the surface projection of the geochemically anomalous patterns described in previous reports and the two crossovers extend in a similar northwesterly direction. It is reasonable to assume that this survey is a useful mapping tool on this property. A more thorough survey over the whole zone is therefore recommended to provide a more complete data base.

It is recommended to carry out this survey along lines run at 045° from a northwesterly trending baseline starting just northwest of the Courte Zone extent of drilling, through the Gumbo Zone to the property boundary. Line spacing should be 100m and line length 400m. A few lines should also be extended in a southwest direction across the Branch 8 Zone through to the property boundary.



Gordon G. Richards, P.Eng.



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REFERENCES

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6.0

STATEMENT OF COSTSTIME:

G. Richards, April 9-12, 1996	
4 days @ \$450/day	\$ 1,800.00

EXPENSES:

Airfare	600.00
Car Rental	110.00
VLF EM Rental	75.00
Food, gas, motel	240.00
Report writing, typing, draughting	750.00

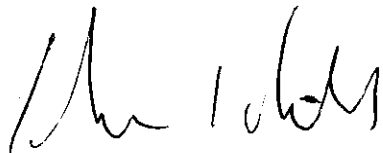
TOTAL:	\$ 3,575.00
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STATEMENT OF QUALIFICATIONS

I, Gordon G. Richards, of Vancouver, British Columbia, do hereby certify that:

1. I am a Professional Engineer of the Province of British Columbia, residing at 6170 Tisdall Street, Vancouver, B.C., V5Z 3N4.
2. I am a graduate of The University of British Columbia, B.A.Sc., 1968, M.A.Sc., 1974.
3. I have practised my profession as a mining exploration geologist continuously since 1968.
4. This report is based on my personal knowledge of the property and district and data presented which was collected by myself.


Gordon G. Richards, P.Eng.

