

78-# 133-# 6968

6968

COURTE RILEY

M481

SOL 1-4, RILEY 1-2, HEMLOCK 1-2
AND SHIELDS MINERAL CLAIMS

Rennel Sound Area, Southwest Graham Island,
Queen Charlotte Islands, B. C.

NTS 103 F/8W

Lat. $53^{\circ}22'$ Long. $132^{\circ}25'$

Skeena Mining Division

REPORT ON GEOLOGY, GEOCHEMISTRY AND
ECONOMIC POTENTIAL

Dates of Work

June 16, 1978, Nov. 1-9, 1977

for

Chevron Standard Limited
Minerals Staff
Vancouver, B.C.

by

J.S. Christie, Ph.D.
G.G. Richards, M.A. Sc., P. Eng.

September 7, 1978

Operator: Chevron Standard Limited
Contractor: JMI Services Corp.

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INTRODUCTION

General

The Sol 1-4, Riley 1-3, Hemlock 1-2, and Shields are contiguous mineral claims located along a zone of mineralization trending WNW from the old Courte Antimony-Gold Prospect on Riley Creek for a distance of some 5 km. Although the Courte Property has been known for many years, the entire area now staked was first recognized to be of interest in the summer of 1977 after several reconnaissance traverses were completed by the writers, and geochemical samples were analysed. This work was supported by B.C. Prospectors Assistance Grants, and geochemical analyses were provided by Chevron Standard Limited. Significant gold, arsenic, and mercury geochemical anomalies in stream sediments were found in several areas northwest of the Courte showings, and numerous zones of strong alteration and mineralization were noted. Many of the mineralized zones occurred along faults more or less parallel to the faults on the Courte Property. A need for more detailed work, and claim staking was recognized.

In early August Mr. V. I. Courte of Powell River, B. C. was approached by JMT Services Corp., a private corporation in which the writers are shareholders, with a view to optioning the Courte Property (the old Sol Claims). At that time negotiations for the property between Courte and UMEX had just broken down, and JMT was able to option the Property. Plans were made for abandonment and restaking of the old Sol Claims as the posts, tags and location lines had deteriorated badly over the years, and additional claims were needed to cover the entire area of interest. A work programme was also planned.



JMT SERVICES CORP.			
SOL-RILEY PROSPECT			
PROPERTY LOCATION MAP			
SCALE			
0		100 Miles	
Prepared by	Date	NTS MAP AREA 103 F/8W	DRAWING No.
Drawn by	Revised:		

In September the JMT - Courte option was taken over by Chevron Canada Limited, and the old Sol 10, 18, 25, 27 claims were abandoned and restaked as Sol 1-2 under the modified grid system. The Sol 3-4, and Riley 1-3 were also staked at that time.

Staking had been completed, and the work programme initiated when the 9 unit ANT claim recorded by UMEX in June 1977 was found strongly overlapping the Courte Property on the west. The ANT claim lines had not been noticed previously as they had been crossed in an area of active logging surveys and roadbuilding where fresh lines were numerous. UMEX was approached on behalf of Courte, and by Courte himself but refused to assign their claim to him, and the work programme was therefore suspended in order that JMT and Chevron might re-assess their positions.

In late September Chevron decided to proceed with the budgeted work programmed despite loss of some ground to UMEX and the work was carried out in late October and early November under generally bad weather conditions. Geological mapping on a scale of 1:4800 was done utilizing topofil, compass, barometer, and a topographic map enlargement for control. A co-ordinate system was established along claim lines and a few wide spaced grid lines. Numerous lines of soil samples were collected by auger at depths up to 1 m beneath surface, and rock chip samples were taken from most of the mineralized outcrops found.

Results of the work programme indicated 2 large areas of strong alteration with some gold mineralization in addition to the old Courte Prospect. These

two areas are referred to as the Needles and the Riley areas, both of which require considerable additional exploration work.

During the November programme the old Sol 25-27 claim line was finally located, and some of the old tags were found along it. Thereafter it was evident that the Sol claims did not lie exactly as shown on the published claim map, and the abandoned Sol 25-27 had not been entirely covered by the restaking of the Sol 1-2. It was then necessary to stake the Hemlock 1-2 and Shields claims to cover the open ground and allow for the uncertainty in the actual location of the old claims. This staking was done in January 1978, and soil and rock chip sampling was carried out on these new claims during June of 1978.

LOCATION AND ACCESS

The property is located north of the head of Renel Sound on the southwest coast of Graham Island, Queen Charlotte Islands. It includes the lower parts of Riley Creek and Needles Creek drainages west of Old Baldy Mountain at elevations ranging from 30 to 800 m.

The property is readily accessible by private logging roads connecting with Queen Charlotte City and Port Clements. These roads are open to the general public after working hours and on weekends or by special arrangement.

Clear-out logging has already been completed in two large areas on the property and is presently being extended into the area immediately east of the Courte showings. Roads built in connection with this logging provide good

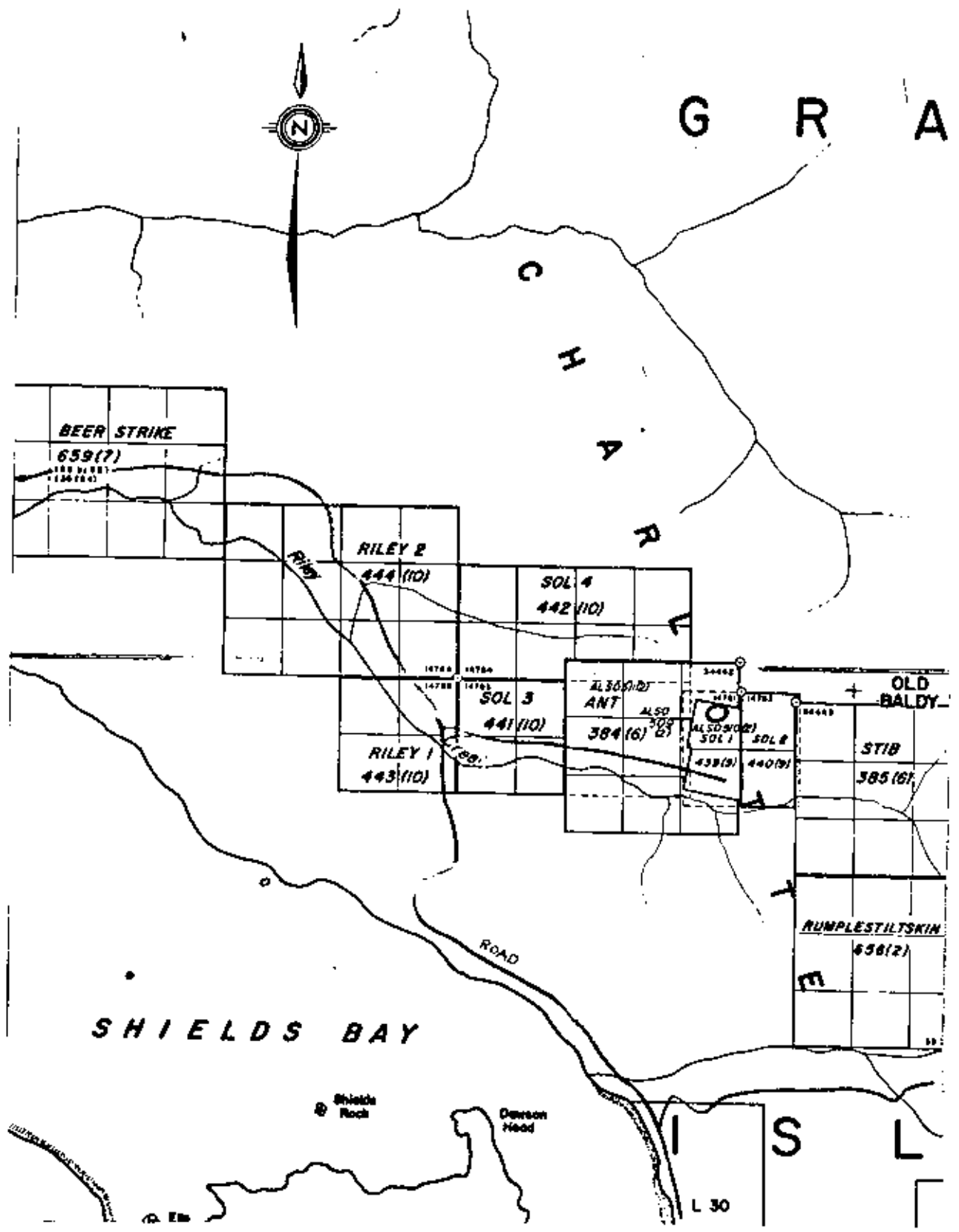
access to much of the property. Additional short roads would be necessary in order to reach some exploration targets should drilling or trenching be required but most of the Riley target area lies within slash and is already quite accessible.

TOPOGRAPHY AND VEGETATION

Riley and Needles Creeks are separated by a steep, heavily forested ridge reaching elevation of 800 m at the eastern property boundary. Outcrop is relatively abundant especially in tributary creeks draining the ridge and in the main creeks. About 700 m from its mouth, Needles Creek enters the broad valley floor of lower Riley Creek. Here, sparse outcrops occur only along Riley Creek. Away from the creek, the valley floor is mantled by alluvium and till which may be relatively thin. This open valley floor and the lower northern slope of upper Riley Creek have been extensively logged. The ridges and Needles Creek Valley are covered with a fairly dense hemlock-spruce-cedar forest. Tree size is small by Queen Charlotte Island standards but the forest is open with respect to underbrush. Windfall is locally bad.

MINERAL CLAIMS

The Property consists of the Sol 1-4, Riley 1-2, Hemlock 1-2 and Shields mineral claims described below and shown on the accompanying Claim and Geology maps. The Sol 1-2 were intended to cover the old Sol 8, 10, 25, 27 claims which were abandoned. The Hemlock 1-2 and Shields were staked later



**SOL-RILEY PROSPECT
CLAIM MAP**
103F/8W

SCALE 1:50,000

when it was discovered that the old Sol 25, 27 were not located as shown on the claim map, and had been covered only partially by Sol 1-2.

<u>NAME</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>	<u>LOCATOR</u>
Sol 1	2	439	Sept. 16, 1977	J.S.Christie agent for
Sol 2	2	440	Sept. 16, 1977	V. I. Courte
Sol 3	8	441	Oct. 3, 1977	K. W. Livingstone
Sol 4	8	442	Oct. 3, 1977	"
Riley 1	4	443	Oct. 3, 1977	"
Riley 2	12	444	Oct. 3, 1977	"
Hemlock 1	1	509	Feb. 10, 1977	W. A. Howell
Hemlock 2	1	510	Feb. 10, 1977	"
Shields	1	511	Feb. 10, 1977	"

GEOLOGY

Lithology

Regional mapping by Sutherland Brown 1968, B.C. Dept. of Mines Bull. #54, indicated the Courte area to be underlain by Yakoun Formation of Jurassic age, the Needles area to be underlain by Yakoun Formation south of Needles Creek and by Masset Formation of Tertiary age north of Needles Creek, and the Riley area to be underlain by Quaternary overburden with quartz diorite of Cretaceous age projecting under the overburden into Riley Creek valley. The Masset Formation does not extend as far south as Needles Creek as indicated in Bull. #54 as no Masset rocks, with the possible exception of some dykes, were identified anywhere on the property. Limy argillites of the Kunga Formation of Upper Triassic age occur along the shore of Shields Bay and up along mountain slopes towards Riley Creek, but no Kunga outcrops have been seen in the Riley Creek drainage.

The Yakoun Formation is described (Bull. #54) as primarily a volcanic unit dominated by pyroclastic rocks but also including much volcanic sandstone, some conglomerate, shale, siltstone, and minor coal. Because of its variable nature, the Yakoun Formation was not subdivided into units during preliminary mapping. Pyroclastic andesites are the most abundant rock type noted on the claims, with some massive andesite along the lower half of Needles Creek and some conglomerates and volcanic sediments occurring throughout the mapped area.

The lowermost outcrops mapped in Riley Creek and on the road to the south are uniform medium to coarse grained quartz diorites. These rocks are probably an extension of the pluton mapped south of this area by Sutherland-Brown.

Numerous small weakly porphyritic felsite dykes were noted within the Needles and Riley areas. Small, < 2 mm, phenocrysts of quartz make up less than 2% of these rocks. All of these dykes contained disseminated pyrite up to 5%. A second type of dyke occurs near the Courte showings. These are feldspar porphyries, also containing up to 5% disseminated pyrite. Feldspar phenocrysts, up to 5 mm long, make up 5 to 30% of the rock and are usually moderately altered to sericite-clays. It is probably significant that these two types of pyritized porphyritic dykes have not been observed outside areas of anomalous gold-arsenic-mercury geochemical response.

Structure

The dominant structure on the property is a WNW trending fault system that appears to have strongly controlled mineralization. Several other faults of varying strikes have also been observed within the mapped area.

The major fault system is not well exposed, but appears to be comprised of fault strands that trend from 110° to 160° with the most significant strands trending $130^{\circ} \pm 10^{\circ}$, such as the fault along the north side of the Courte mineralization, and the fault lying along lower Needles Creek above the main road. Splays off these faults and subparallel faults make up the fault system. Observed splays and subparallel faults within 30 to 60 m of these major faults contain gold-sulphide mineralization which have yielded geochemical analyses as high as 7500 ppb Au (sample C818). Fault gouge is well developed in most fault exposures. At the site of sample C818 the gouge is strongly altered and mineralized and the sulphide is about 95% oxidized. Sample C818 is from a gouge zone 5 - 10 m wide, and lies at the northwesterly limit of exposure of a major WNW trending fault system. This mineralized fault strand projects to the southeast along lower Needles Creek and to the northwest into a barren outcrop some 30 m away. Because this fault is believed to be a major structure, which could hardly terminate so abruptly, it is thought to be slightly offset along a crossfault and probably projects northwest into the flat lower Riley Creek valley floor. The geochemical patterns described below appear to substantiate and may help to identify this assumed projection(see Geochemistry).

A zone of heavy sulphide mineralized clay-like gumbo with a breccia texture occurs as outcrops in creeks between R909 and R916 in the Needles area. This gumbo appears related to the faulting in a general way. Mineralization related to the faults may have interacted with specific pyroclastic units thereby producing the gumbo or alternatively may have reacted with ground prepared by brecciation associated with the faulting or a combination of both.

Alteration and Mineralization

Carbonate-sulphide-sericite-silica alteration occurs throughout the map area in zones up to 500 m long and 150 m wide. Three altered zones along the fault system contain highly anomalous gold geochemistry. These areas, referred to as Courte, Needles and Riley are described below. Areas away from the fault system contain weak gold-arsenic-mercury-antimony geochemistry. Disseminated and vein carbonate is common in some altered zones and in many otherwise unaltered Yakoun outcrops. The abundance of carbonate in the map area 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 very shallowly some of the anomalous gold areas.

(a) Courte

The Courte showing area was mapped and sampled in 1971 by the writers for Quintana Minerals Corp., although Quintana did not choose to option the property at that time. Quintana's work indicated an area some 70 x 300 m in which the surface grade was estimated to be .04/oz/ton Au and .40% Sb. Based on the current geochemical results

described below, this same mineralized zone appears to extend a considerable distance further northwest, although it may not be as wide as at the Courte showings. A second mineralized zone or system or a continuation of the Courte system may occur further northwest. Two soil samples, R931 and R932 ran 170 and 185 ppb Au respectively. Outcrops in the area contain weakly bleached andesites with 1 - 2% pyrite and a 7 m wide fault gouge (not sampled) trending $150^{\circ} \pm$. This lead warrants further work.

(b) Needles

The Needles area includes the area of gumbo described in the section on structure and another area to the southeast which is separated from the gumbo by a zone of pervasive chlorite-clay alteration containing very little sulphide. The gumbo displays pervasive 5 - 10% fine-grained disseminated plus fracture pyrite together with sericite-clays. Local areas of silicification occur in the gumbo and in volcanics around the gumbo. Arsenopyrite needles also occur locally in the gumbo. One occurrence, R910, contains about 5% arsenopyrite needles <2 mm long. The gumbo zone is within a larger zone of locally weakly bleached andesites containing up to 2% disseminated pyrite that lies along the major fault system. Southeast from the gumbo, pyrite weakens by samples C832-C833 where the alteration is essentially chlorite-clay with weak patchy pyrite. Further southeast intensity of alteration again increases to pervasive pyrite with strong bleaching and local silicification (C824-C829) at the edge of the area mapped. The extent of this mineralized alteration has not been determined but

could be more or less continuous to the Courte showing area some 1300 m southeast. A sample of float collected along the Riley Creek road (WL 303) south of this area assayed 2850 ppb Au, focusing attention on the need for more work.

(c) Riley

The Riley area is subdivided into two areas which may possibly be related. The most westerly area along lower Riley Creek contains three only widely spaced outcrops of volcanics (C383, C388, and C390) with chlorite-weak bleaching-pyrite-carbonate alteration. The second 3 m occurs along lower Needle Creek where slopes are steeper and exposure is much better. This zone contains strongly bleached, highly altered rocks including pyroclastics and gumbo breccias similar to those at upper Needles. Strong pyrite mineralization and local hard silicification (C822) are associated. Anomalous gold values are present but most significantly this zone includes the 5 - 10 m mineralized fault zone (C818) that assayed 7500 ppb Au. The projections of this structure WNW and ESE have not yet been determined exactly.

GEOCHEMISTRY

Silt, soil and rock chip sampling have been extended to provide fairly detailed coverage in the areas of anomalous Au, As and Hg geochemistry. Sb was run on the initial samples but was dropped in the later work as response was considerably weaker than for As, although it is clear that Sb is also an indicator of mineralized areas. The Courte grid was extended approximately

500 m west starting with sample C1046 which was collected at the old grid sample site of #5878 (650N, 450W). Sampling was extended further west in June 1978 onto the Hemlock and Shields claims.

In total 56 rock, 183 soil, and 12 silt samples, and 3 rock and 9 soil samples were collected in 1977 and 1978 respectively. Rock chip samples were made up of from 3 - 20 chips of outcrops varying with the size and continuity of the bedrock exposure sampled. All geochemical analyses were done on the minus 80 mesh fraction by Bondar Clegg & Co. Ltd., 1500 Pemberton Ave., North Vancouver, using the following standard procedures:

Arsenic: Perchloric Nitric-Colorimetric
 Mercury: Controlled Aqua Regia - Closed Cell Atomic Absorption
 Gold+: Fire Assay and Hot Aqua Regia - Atomic Absorption

Gold

Values as high as 7500 ppb were obtained. Anomalous gold (>10 ppb) in rocks, soils and silts occurs scattered over the entire 5 km long by 1000 m wide zone investigated although three stronger anomalies stand out within it. These are the Courte showing area, the Needles mineralized breccia area and the Riley mineralized areas (lower Needles Creek and lower Riley Creek).

(a) Courte

Extension of the Courte soil grid about 500 m west along three lines (see map) has indicated at least weak continuity of Au mineralization for the entire 500 m. The first six samples along the middle line are strongly anomalous (values to 5400 ppb in soil). Samples R931 and R932

at the end of the upper line are also strongly anomalous (170 and 185 ppb Au) indicating that mineralization may again be increasing to the northwest beyond the area surveyed, but 1978 sampling further west failed to extend the gold anomaly. Samples between the two strongly anomalous areas are weakly anomalous but outcrops sampled, although well mineralized with pyrite, suggest that the zone of gold mineralization must be narrow. Of note is the lack of any strong anomalous gold in the lower line, indicating very limited downslope migration of gold.

(b) Needles

The strong 1300 m by 300 m gold anomaly on the south side of upper Needles Creek is approximately coincident with the zones of alteration and sulphide mineralization, but despite encouraging geology no surface rock samples approaching commercial grade were obtained. Rock samples of the gumbo breccia in the area of R909, 910, 911 (110-260 ppb Au) appear to be most strongly anomalous and sample density is low enough that zones of better grade gold could be present at surface, although perhaps not exposed. Soil samples in the area indicate that some form of gold mineralization is continuous in the gumbo breccia area and beyond. Soil samples at the southeast end of the anomaly (C1005 - C1009) coincide with an increasing alteration trend opening southeast beyond the area surveyed. Anomalous samples (R880 - R883) northwest of the gumbo breccia are in an area with little outcrop and are unexplained. Of note is the

lack of anomalous Au in silts R361, 362 and 363 which drain the area anomalous in Au (C1005 - C1009) high on the hillside - another example of poor downslope migration of Au, only this time in silts.

(c) Riley

Gold anomalies occur in two areas. One area is north of lower Needles Creek, the other along the flat valley floor of lower Riley Creek. The lower Needles gold anomaly is strongest and yielded the highest rock geochemical assay obtained in the survey, C818 - 7500 ppb Au, from a 5 - 10 m wide fault zone trending approximately 115° . The sample was strongly altered to sericite and estimated to be 95% leached. It was obviously well mineralized with sulphide initially, especially in veinlets parallel to the shear structures. The extensions of this zone of mineralization are not known in either direction. To the east, anomalous gold values in soil and silt indicate that the zone may persist for 500 m or more but the geochemical pattern is difficult to interpret as the alteration zone expands to the north and anomalous rock samples have been obtained higher on the hill. To the west, the zone is believed to be offset on one or more northerly trending left lateral faults such that it lies somewhere beneath the overburden on the flat valley floor of lower Riley Creek. Of note are two northerly trending faults mapped two miles south on the shore of Rennell Sound, which project into this area. The weakly anomalous gold in soils along the lower valley may possibly be an expression of this mineralized zone.

Soils obtained in this area however are clearly not residual and include sandy fluvial deposits and wet clays and till. Geochemical mobility of gold in such an environment would likely be minimal.

Arsenic

Arsenic appears to be an excellent indicator of mineralization in the area and in all cases the areas of strongest arsenic (750 ppm) coincide well with the gold anomalies. The arsenic pattern at lower Needles Creek is spotty like the gold. The soil and silt arsenic anomaly along lower Riley is in contrast much stronger than the gold, perhaps due to the greater mobility of arsenic. It seems to enhance the lower Riley anomaly where gold alone might be suspect. Arsenic results from the 1978 sampling on the Shields and Hemlock claims strongly suggests that the northwest projection of the Courte mineralization is valid.

Mercury

At the Courte showings and throughout the local area zones of gold-arsenic mineralization are in all cases flanked by halos of higher mercury values. This pattern is most useful in further validating the large gold arsenic anomaly in the flat overburden covered area of lower Riley Creek (see map).

CONCLUSIONS AND RECOMMENDATIONS

Geological and geochemical data assembled to date have indicated persistent gold-arsenic mineralization over a strike length of some three miles WNW of the old Courte antimony-gold showings. Extensions of the surveys and much

more detailed work could be done in several areas to better define drill targets. However, work to date is sufficiently encouraging within each of the Courte, Needles and Riley areas of interest to justify drill programmes.

(a) Courte

The new soil grid has indicated at least a 200 m strike extension of known gold mineralization to the WNW and possible expansion of the mineralized system at the NW end of the survey. Mapping and more detailed sampling should be directed further west, especially in view of float sample WL303 (2850 ppb Au) from a creek 300 m west of the soil grid, and a southeasterly projection of anomalous gold geochemistry and alteration into this same area from the Needles Creek survey some 1300 m further NW. Several diamond drill holes are warranted to measure the near-surface grade of the Courte zone and to form a basis on which to make a decision to drill deeper holes.

(b) Needles

The area of anomalous gold-arsenic mineralization in and around the gumbo breccia should be mapped and further sampled in detail to determine more accurately surface grade and grade trends. Potential for better grade mineralization at depth is judged to be considerable as the style of mineralization within the gumbo breccia is likely indicative of a very high level in the system. Some additional attention should be given to the area of anomalous gold arsenic in soils some 170 m northwest of the gumbo breccia zone as this anomaly has neither been explained nor limited.

(c) Riley

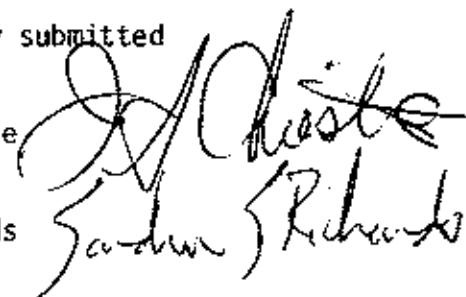
The area of anomalous gold-arsenic mineralization north of lower Needles should be mapped and sampled in detail and this work should be directed toward locating the extensions of the mineralized fault structure (C818 - 7500 ppb Au). Several short diamond drill holes will be required. More sampling to the west in the valley of lower Riley may also be useful but it is believed that all exposed bedrock has already been located. A magnetometer survey could prove useful within this overburden covered area in identification of alteration zones within the Yakoun volcanics, as the alteration is magnetite destructive. Percussion drilling also might be considered practical as most of the area is in recent logging slash and access would be relatively easy.

The possibility of zones of better grade mineralization at depth is intriguing along the entire mineralized trend. While the surface mineralization is developed entirely within the volcanoclastic Yakoun Formation, these same mineralized zones must cut the underlying limy argillites and limestones of the older Kunga Formation. Such rocks provide excellent hosts for gold mineralization in other gold districts.

Respectfully submitted

J.S. Christie

G.G. Richards


 The image shows two handwritten signatures in black ink. The top signature is for J.S. Christie, written in a cursive style. The bottom signature is for G.G. Richards, also in cursive. The signatures are positioned to the right of the typed names.

ITEMIZED COST STATEMENT

1977

Geological Mapping and Sampling

J.S. Christie	Nov.1-9	17 man days @ \$150.	\$2,550.00
G.G. Richards	Nov.1-8		

Preparation of preliminary maps - brief report

Nov. 23, 24 - J.S. Christie	- 2 man days @ \$150.	300.00
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Geochemical Analyses	251 Gold @ \$3.50	878.50
	251 Arsenic @ \$2.50	627.50
	251 Mercury @ \$3.50	878.50
	195 Sample preparations @.35	68.25
	56 Rock sample preparations @ \$1.25	70.00

Truck and camper rental - Nov.1-9	438.74
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Air Fare - 2 men - one way Vancouver - QCI	140.00
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Motel - Nov.8	18.90
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Food - Nov. 1-9	300.00
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Technical supplies and freight	331.58
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1978

Geological Mapping and Sampling - G.G. Richards - June 16	150.00
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Analyses	120.90
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Truck rental	30.00
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Meals	15.00
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Motel	18.90
-------	-------

Drafting and duplication of maps	325.00
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Preparation of final report - J.S. Christie - Sept.6-7	<u>300.00</u>
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TOTAL	<u>\$7,561.77</u>
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STATEMENT OF QUALIFICATIONS

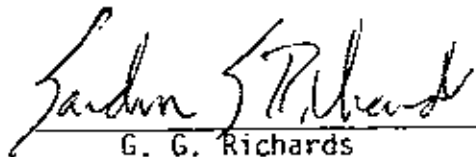
I, James S. Christie do hereby certify that:

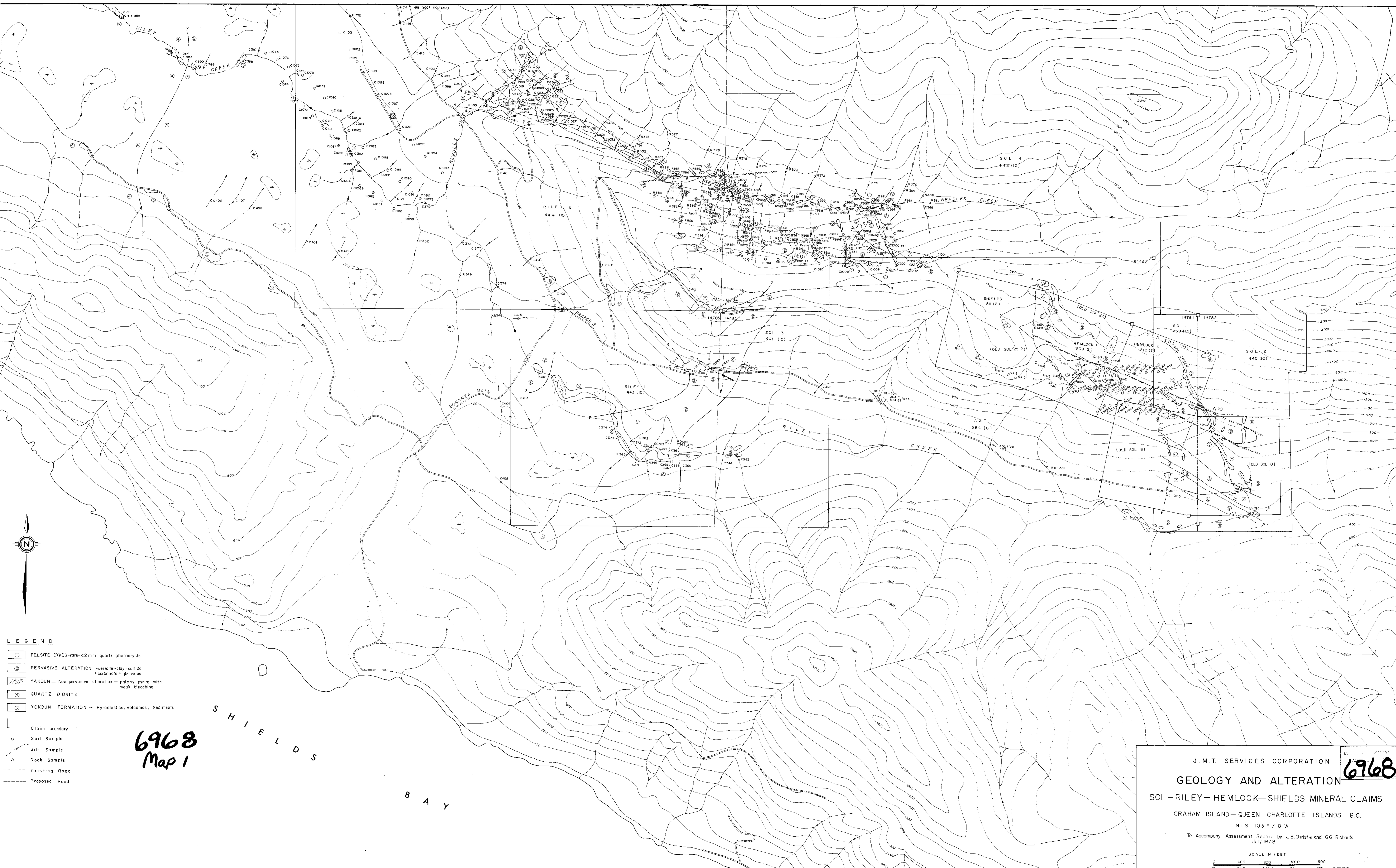
1. I am a Professional Geologist residing at 191 Rondoval Crescent,
North Vancouver, B. C. V7N 2W6.
2. I am a graduate of the University of British Columbia,
B.Sc. - Honours Geology - 1965; Ph.D. - Geology - 1973.
3. I have practiced my profession as a mining exploration geologist
continuously since 1965.
4. I am a Fellow of the Geological Association of Canada.
5. I am a Member of the Geological Society of America.


J. S. Christie

I, Gordon G. Richards do hereby certify that:

1. I am a Professional Engineer of British Columbia residing at
818 West 68th Avenue, Vancouver, British Columbia V6P 2V2.
2. I am a graduate of the University of British Columbia,
B.A.Sc. - 1968; M.A.Sc. - 1974.
3. I have practiced my profession as a mining exploration geologist
continuously since 1968.


G. G. Richards



- LEGEND**
- ① FELSITE DYKES-rare-<2mm quartz phenocrysts
 - ② PERVASIVE ALTERATION -sericite-clay-sulfide
± carbonate ± qtz veins
 - ③ YAKOUN - Non pervasive alteration - patchy pyrite with
weak bleaching
 - ④ QUARTZ DIORITE
 - ⑤ YOKOUN FORMATION - Pyroclastics, Volcanics, Sediments
 - Claim boundary
 - Soil Sample
 - Silt Sample
 - △ Rock Sample
 - ==== Existing Road
 - Proposed Road

6968
Map 1

S H I E L D S

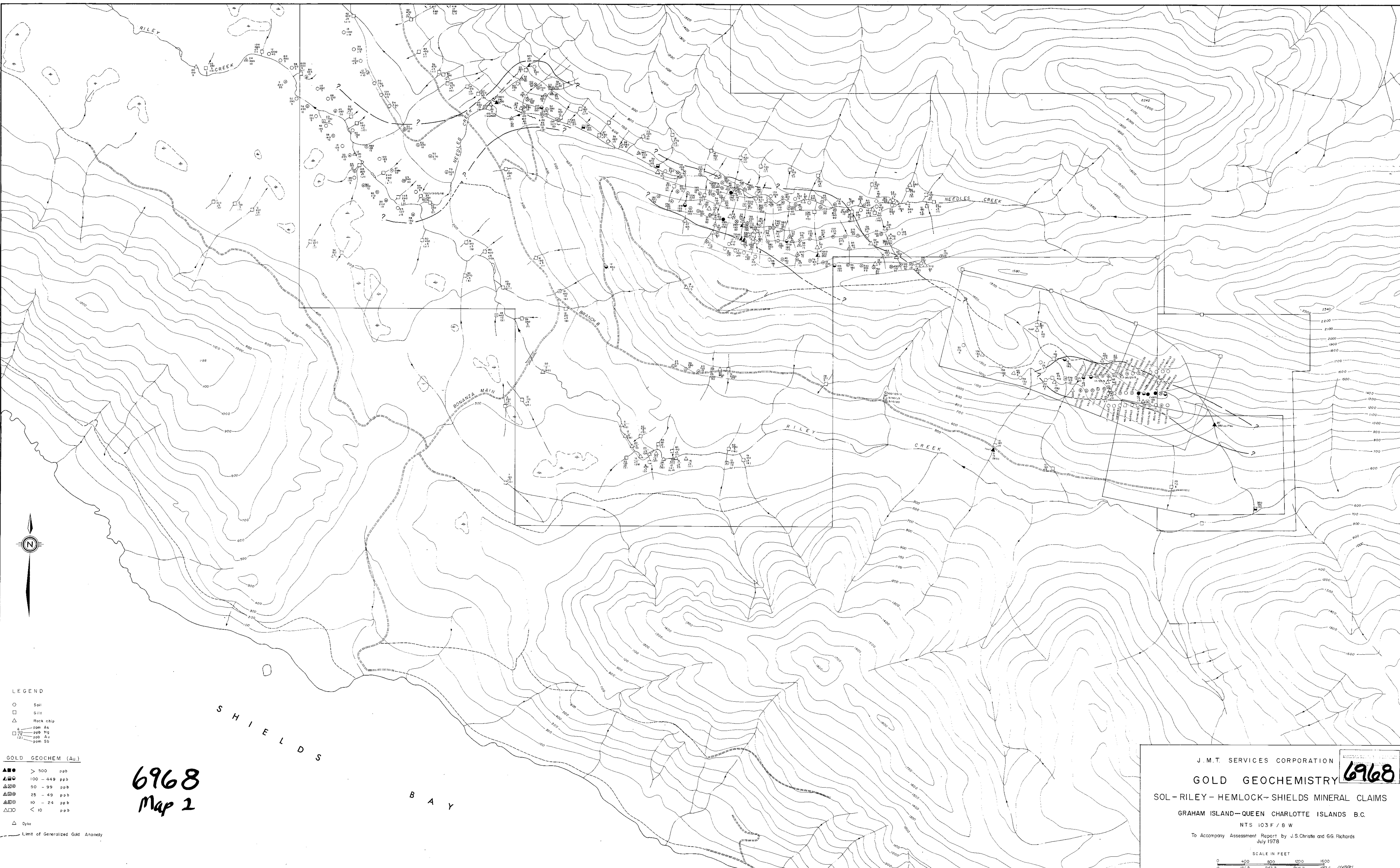
B A Y

6968

J.M.T. SERVICES CORPORATION
GEOLOGY AND ALTERATION
 SOL-RILEY-HEMLOCK-SHIELDS MINERAL CLAIMS
 GRAHAM ISLAND-QUEEN CHARLOTTE ISLANDS B.C.
 NTS 103 F / 8 W
 To Accompany Assessment Report by J.S.Christie and G.G.Richards
 July 1978

SCALE IN FEET
 0 400 800 1200 1600
 0 123 243 365.7 487 METERS

MAP 1



LEGEND

- Soil
- Silt
- △ Rock chip
- ① ppm As
- ② ppb Hg
- ③ ppb Au
- ④ ppm Sb

GOLD GEOCHEM (Au)

- ▲▲▲ > 500 ppb
- ▲▲○ 100 - 449 ppb
- ▲○○ 50 - 99 ppb
- ▲○○○ 25 - 49 ppb
- ▲○○○○ 10 - 24 ppb
- △○○○ < 10 ppb

△ Dyke
 --- Limit of Generalized Gold Anomaly

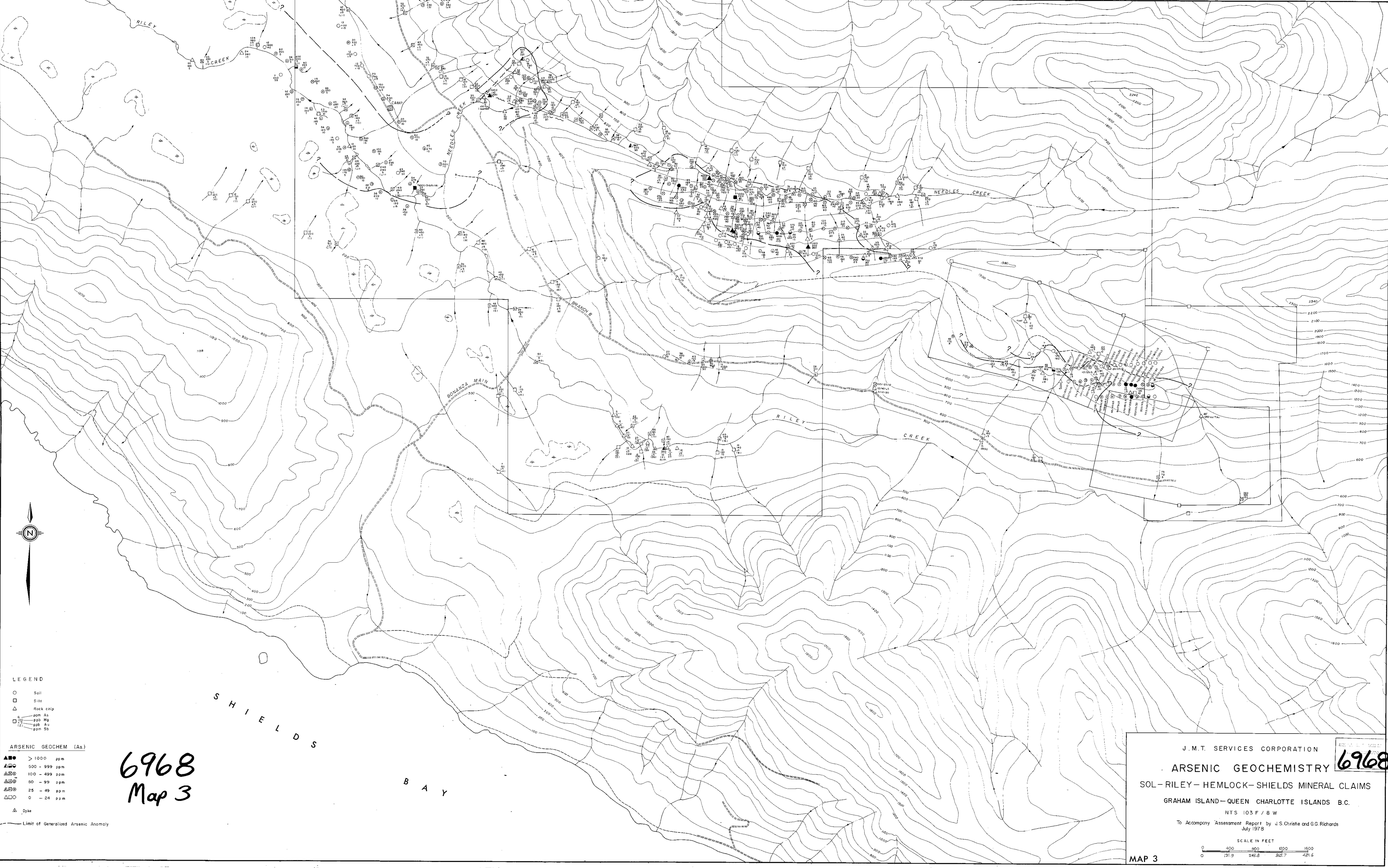
6968
Map 2

S H I E L D S
 B A Y

J.M.T. SERVICES CORPORATION
GOLD GEOCHEMISTRY 6968
 SOL - RILEY - HEMLOCK - SHIELDS MINERAL CLAIMS
 GRAHAM ISLAND - QUEEN CHARLOTTE ISLANDS B.C.
 NTS 103 F / 8 W
 To Accompany Assessment Report by J.S. Christie and G.G. Richards
 July 1978

SCALE IN FEET
 0 400 800 1200 1600
 0 121.9 243.8 365.7 487.6 meters

MAP 2



LEGEND

- Soil
- Silt
- △ Rock chip
- ppm As
- ppm Hg
- ppm Au
- ppm Sb

ARSENIC GEOCHEM (As)

- ▲●● > 1000 ppm
- ▲●○ 500 - 999 ppm
- ▲○○ 100 - 499 ppm
- ▲○○○ 50 - 99 ppm
- ▲○○○○ 25 - 49 ppm
- ▲○○○○○ 0 - 24 ppm
- △ Dyke

— Limit of Generalized Arsenic Anomaly

6968
Map 3

J.M.T. SERVICES CORPORATION

ARSENIC GEOCHEMISTRY 6968

SOL-RILEY-HEMLOCK-SHIELDS MINERAL CLAIMS

GRAHAM ISLAND-QUEEN CHARLOTTE ISLANDS B.C.

NTS 103 F / 8 W

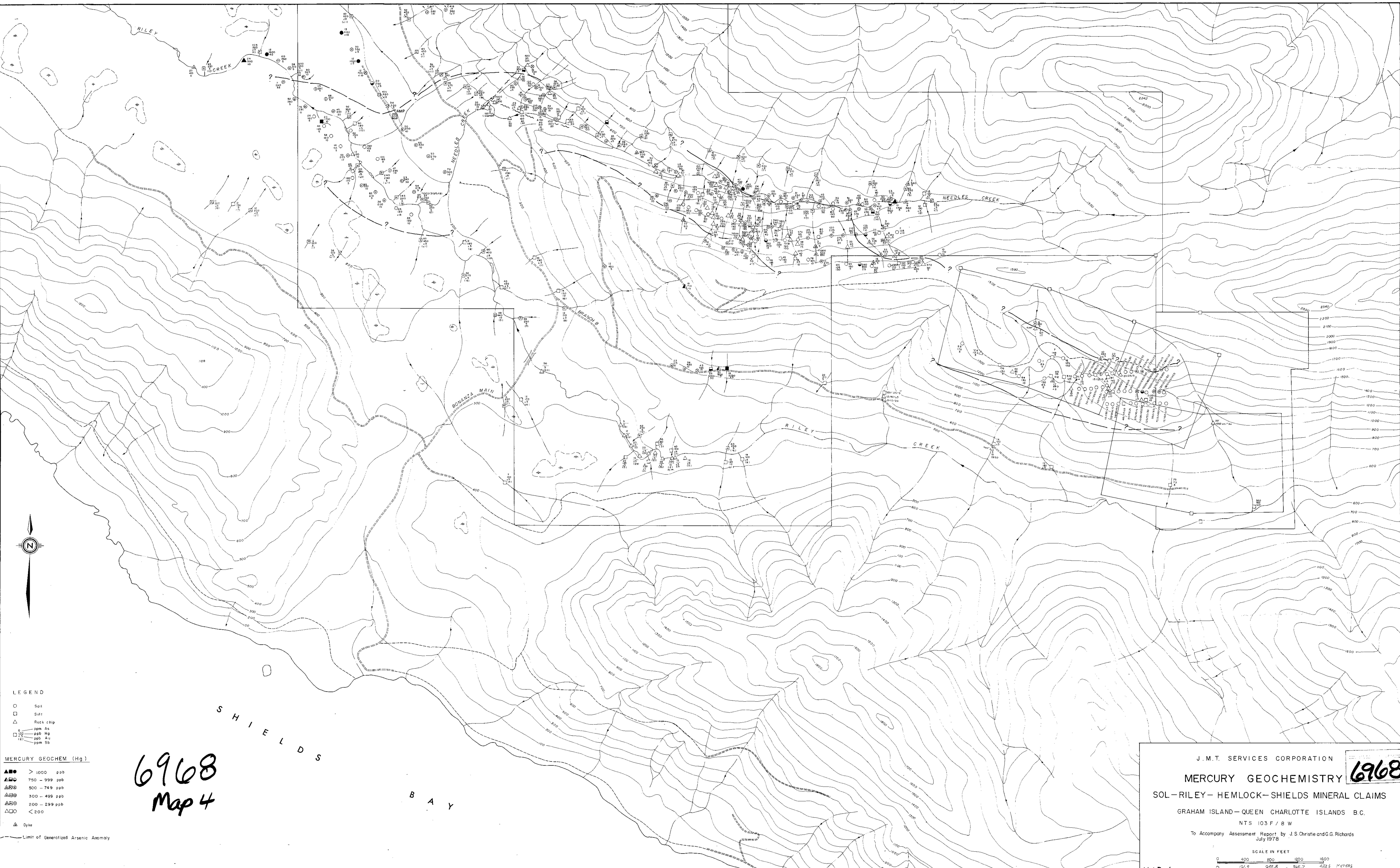
To Accompany Assessment Report by J.S. Christie and G.G. Richards
July 1978

SCALE IN FEET

0 400 800 1200 1600

0 121.9 243.8 365.7 487.6

MAP 3



LEGEND

- Soil
- Silt
- △ Rock chip
- ppm As
- ppb Hg
- △ ppb Au
- ppm Sb

MERCURY GEOCHEM (Hg)

- ▲●● > 1000 ppb
- ▲●○ 750 - 999 ppb
- ▲●○ 500 - 749 ppb
- ▲●○ 300 - 499 ppb
- ▲●○ 200 - 299 ppb
- ▲○ ○ < 200

▲ Dyke

— Limit of Generalized Arsenic Anomaly

6968
Map 4

S H I E L D S

B A Y

J.M.T. SERVICES CORPORATION

MERCURY GEOCHEMISTRY **6968**

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SCALE IN FEET

0 400 800 1200 1600

1:21,7 1:24,8 1:36,7 1:42,6 METERS

MAP 4