GEOLOGY AND GEOCHEMISTRY REPORT

FOUR CORNERS #1-#4 MINERAL CLAIMS

SKEENA MINING DIVISION

RICHARDSON ISLAND, QUEEN CHARLOTTE ISLANDS, B.C.

NTS 103B/12E&W 103B/13E&W

LATITUDE 52°45'N LONGITUDE 131°45'W

DATES OF WORK: April 25, 1984 - May 27, 1984

OWNER	GORDON G. RICHARDS
OPERATOR	MAJOREM MINERALS LTD.
CONTRACTOR	JMT SERVICES CORP.
BY	JAMES S. CHRISTIE, Ph.D.
DATE	JULY 30, 1984

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INTRODUCTION

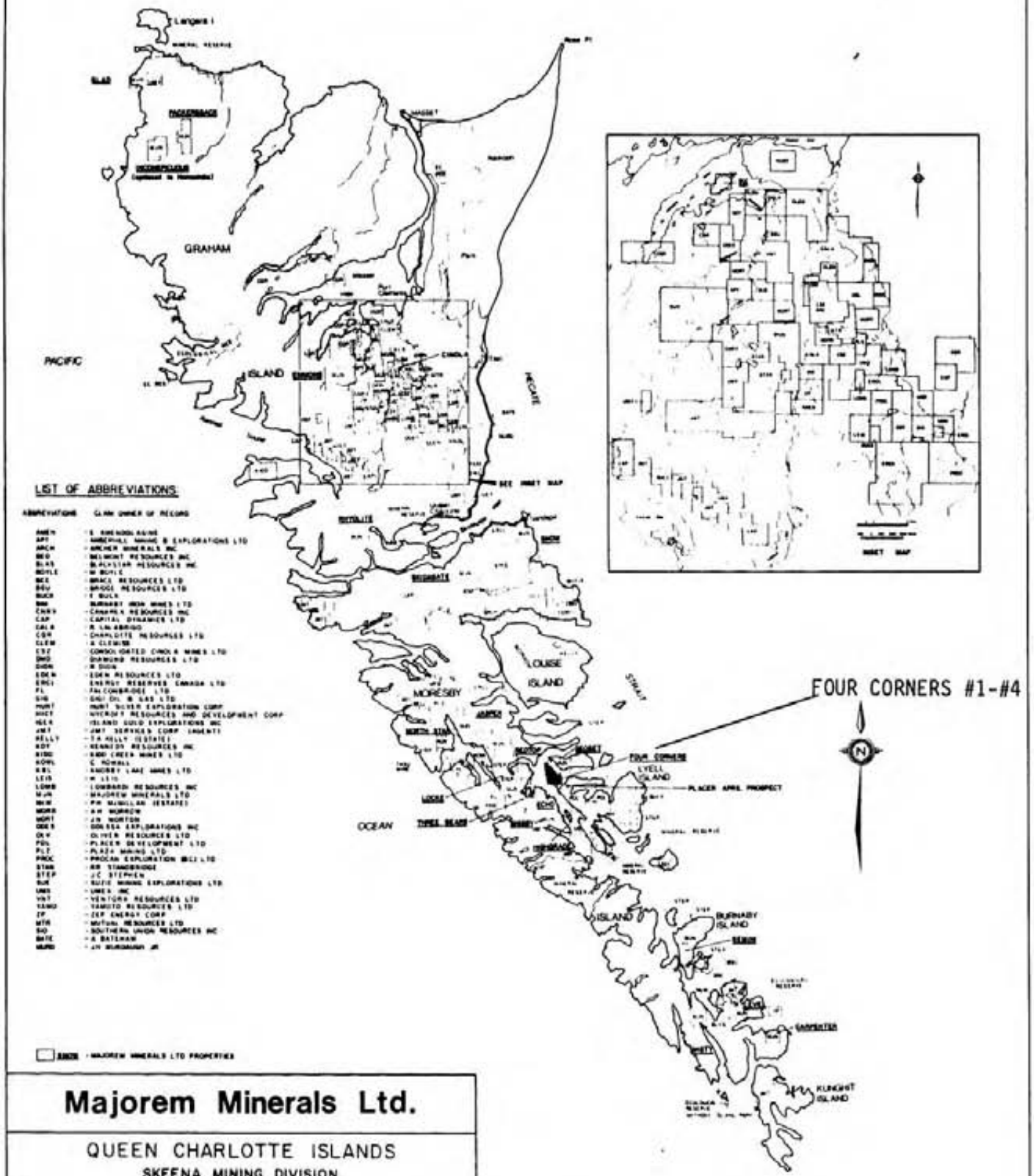
In the spring of 1979, a few stream sediments collected from Richardson Island returned moderately anomalous arsenic values. In early spring of 1980, follow-up prospecting revealed complicated geology, some pyrite mineralization and more anomalous arsenic with a few anomalous golds in stream sediments. The property was staked May 3, 1980. Detailed mapping and sampling were done in early spring 1981, followed by further mapping and sampling during the autumn of 1981.

Geology was found to include four rock formations complicated by faulting and several types of intrusions. Anomalous arsenic patterns with spotty anomalous gold values associated with pyrite mineralization indicated the need for further prospecting. One large area comprising the southeast corner of the island had not been mapped or sampled in the previous 1981 programmes. This areas was selected for investigation in 1984. It had been indicated to be underlain by Karmutsen greenstones on the basis of previous work. Karmutsen volcanics host interesting gold mineralization on the HIGHGRADE prospect, a few kilometers southwest.

The 1984 soil sampling programme was carried out on a N-S grid with line spacings of 150-250 metres and sample sites at 50 metre intervals along the lines. A few base-of-slope contour lines were also run with the same sample interval. Outcrops encountered were mapped and sampled where alteration or mineralization warranted.

In total 147 soils, 6 silts and 5 rock chips samples were obtained and analyzed for gold and arsenic. Geology and geochem results are plotted on Figures 3-5.

LOCATION MAP: FOUR CORNERS #1-#4 MINERAL CLAIMS



LIST OF ABBREVIATIONS

ABBREVIATIONS	CLAIM OWNER OF RECORD
[illegible]	[illegible]
APT	[illegible]
ARCH	ARCHER MINERALS INC
BEG	BELMONT RESOURCES INC
BLKS	BLACKSTAR RESOURCES INC
BOYLE	W BOYLE
BRX	BRACO RESOURCES LTD
BRX	BRIDGE RESOURCES LTD
BULK	T BULK
BW	BURNABY IRON MINES LTD
CHRY	CHROMEX RESOURCES INC
CAP	CAPITAL DYNAMICS LTD
CALB	R CALABRIGO
CGR	CHARLOTTE RESOURCES LTD
CLEM	A CLEMES
CEC	CONSOLIDATED CINOLA MINES LTD
DMD	DIAMOND RESOURCES LTD
DION	M DION
EDEN	EDEN RESOURCES LTD
ERCI	ENERGY RESERVES CANADA LTD
FL	FALCONBRIDGE LTD
GIG	GIG OIL & GAS LTD
HUNT	HUNT SILVER EXPLORATION CORP
HVCT	HYCROFT RESOURCES AND DEVELOPMENT CORP
ISLG	ISLAND GOLD EXPLORATIONS INC
JMT	JMT SERVICES CORP (AGENT)
KELLY	T.A KELLY (ESTATE)
KOY	KENNECOTT RESOURCES INC
KING	KING CREEK MINES LTD
KOPEL	C KOPELL
KRL	KNORBY LAKE MINES LTD
LEIS	W LEIS
LOMB	LOMBARDI RESOURCES INC
MJR	MAJOREM MINERALS LTD
MKM	PM MCMILLAN (ESTATE)
MORR	AM MORROW
MORT	JR MORTON
ODES	ODESSA EXPLORATIONS INC
OLV	OLIVER RESOURCES LTD
POL	POLARIS DEVELOPMENT LTD
PLT	PLATE MINING LTD
PROC	PROCAN EXPLORATION (83) LTD
STAN	RM STANBRIDGE
STEP	JC STEPHEN
SUR	SURIC MINING EXPLORATIONS LTD
UNEX	UNEX INC
VNT	VENTORO RESOURCES LTD
YAMO	YAMOTO RESOURCES LTD
ZP	ZEF ENERGY CORP
MTR	Mutual RESOURCES LTD
SO	SOUTHERN UNION RESOURCES INC
BATE	A BATEMAN
MURD	JH MURDAMAN JR

[illegible] - MAJOREM MINERALS LTD PROPERTIES

Majorem Minerals Ltd.

QUEEN CHARLOTTE ISLANDS
SKEENA MINING DIVISION
MINERAL CLAIM MAP

ACCURACY NOT GUARANTIED - This map is believed to be a good approximation of claim location and ownership	DATE - July 1, 1983 - Includes mineral claims recorded prior to July 1, 1983

Prepared By - JMT SERVICES CORP 6627 Hudson St Vancouver, BC - 604-266 [illegible]

Drafted By - Finning Drafting & Graphics Ltd

0 10 20 30 40 50 60 km

LOCATION AND ACCESS

The property covers most of Richardson Island, a 3 km by 6 km long island lying 54 km due south of Sandspit. Access to the claim can be made by helicopter to a few recent slides on the island or to a few beaches along the generally steep shoreline. Access can also be made by float-equipped fixed wing aircraft to a gravel beach on the west side of the island or by boat. Sandspit has charter helicopter bases, Queen Charlotte Helicopters or Vancouver Island Helicopters, and a charter fixed wing aircraft base, Trans Provincial Airlines (B.C. Air). Pacific Western Airlines provides daily jet service to Vancouver.

TOPOGRAPHY AND VEGETATION

Elevations on the property range from sea level to a 1600 foot high peak in the centre of the island. West facing slopes are extremely steep and difficult to traverse. East facing slopes are moderately steep and generally easily traversible. Much of the island was logged, about 40 years ago, except for the steeper hillsides.

MINERAL CLAIMS

CLAIM NAME	UNITS	RECORD NO.	RECORD DATE	OWNER
FOUR CORNERS #1	20	2334	May 28, 1980	G.G. Richards
#2	12	2335	"	"
#3	15	2336	"	"
#4	2	2337	"	"

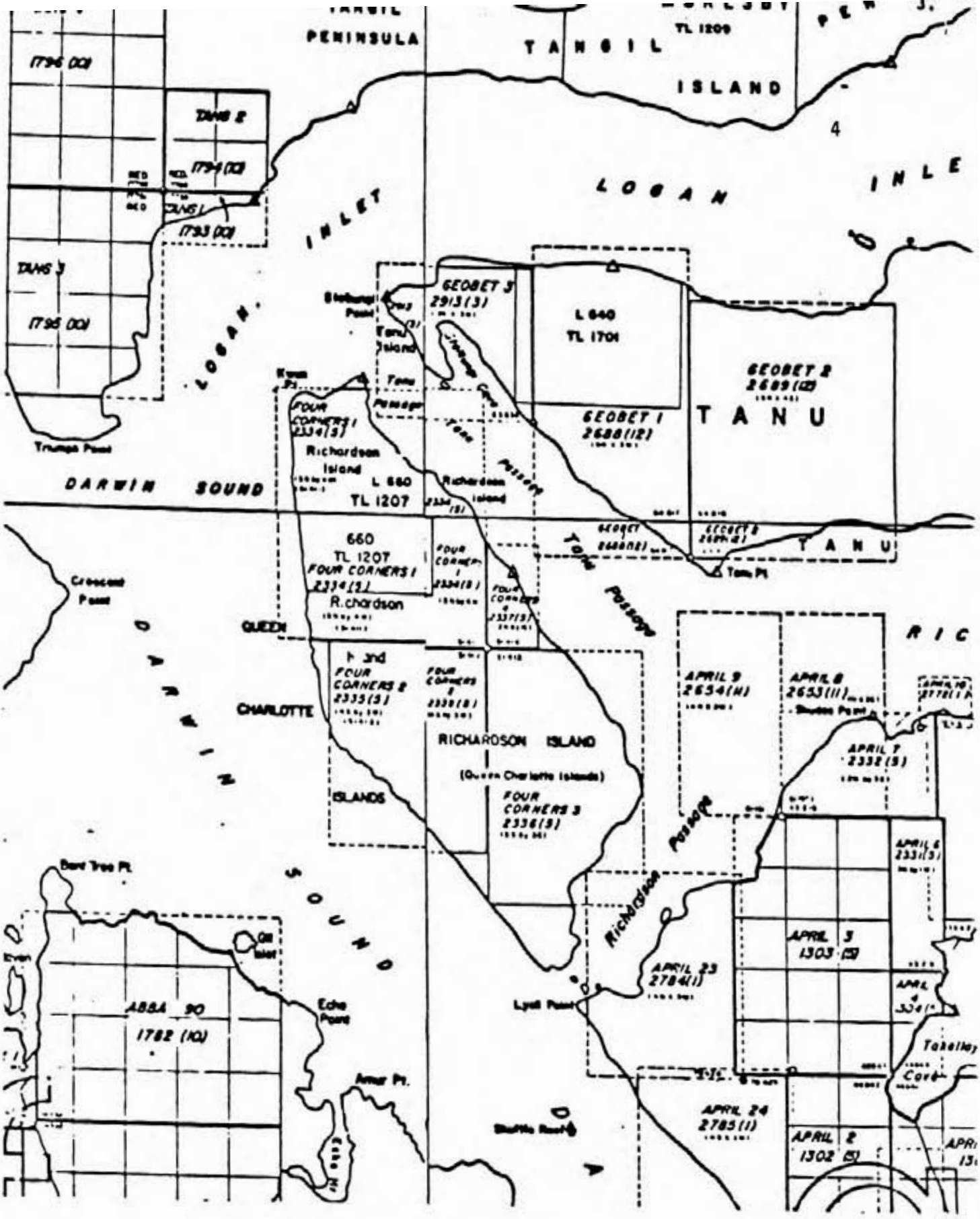


FIGURE 2 CLAIM MAP
FOUR CORNERS #1-#4 MINERAL CLAIMS

GEOLOGY

General

The oldest rocks exposed on the property are Triassic Karmutsen Formation flows and pillow lavas. Overlying this formation is the Upper Triassic to Lower Jurassic Kunga Formation limestones, limy argillites and argillites. Jurassic Yakoun Formation volcanic breccias and argillaceous volcanics overlie the Kunga Formation. Fault contacts are common between all of these rock types. Acid dykes of dacitic to rhyolitic composition intrude all of the above rocks as dykes and small plugs. They are believed to be intrusive phases of the Tertiary Masset Formation. Some volcanic breccia, tuffs, and flows above the northwest coast are possible extrusive phases of the Masset Formation. Small diorite plugs intrude the Karmutsen greenstones on the central part of the steep west facing slope.

Structure

Several faults have been recognized and many more are believed to be present based on the abrupt transition from one formation to another with missing stratigraphy that is normally present. The only fault that is well exposed occurs near R368 at an elevation of 350' on the northeast coast of the island. Here Karmutsen greenstones are in contact with middle Kunga Formation argillites. The basal Kunga Formation limestones, usually present, are missing. The fault zone is comprised of several strands over a 30 m width. Weakly vesicular dacitic dykes with minor sulfide content intrude the argillites subparallel with the fault up to 200 m from the fault.

Richardson Island lies on the projection of the major Rennell-Louscoone transform fault. The faults shown on Figure 3 are probably splays off this major fault.

Mineralization and Alteration

Two areas of pyrite mineralization were noted during previous sampling and mapping. The first area occurs along the shoreline and the next higher survey line between J488 and J510. Here sulfide occurs as disseminations, streaks and blebs and fracture fillings within Karmutsen greenstones Kunga argillites and possibly Yakoun volcanics. Little is known of the occurrence of sulfide. The sulfide may form local zones or have a more broad distribution.

The second area of mineralization occurs on the north end of the island on the steep west facing slope. Here rhyolite dykes, stocks and volcanic flows, tuffs and breccias of probable Tertiary age contain disseminated and rare fracture sulfide over a broad zone which roughly correlates with the 30 ppm As content in soils (Figure 5).

1984 Mapping

The southeast end of the island mapped during the current programme appears to be entirely underlain by Karmutsen Formation . Most of the outcrops mapped are comprised of massive chloritic greenstones and pillowed greenstones. A few thin interbeds of grey limestone were also encountered indicating the upper part of the Karmutsen section. No significant areas of alteration or sulfide mineralization were found although low sulfide silicification was seen at a number of locations, and

in float. This type of alteration is common in the Karmutsen throughout the Charlottes. Weakly anomalous gold and arsenic values are commonly associated.

GEOCHEMISTRY

The work described in this report was designed to extend systematic sampling geochem data and mapping into an unknown part of Richardson Island. This report may be viewed as an extension of the earlier work.

The combined programmes provide a general geologic map and geochemical coverage, based on soils, rock chips and silts, of the claim area particularly concentrated on the north half of Richardson Island which had previous reconnaissance silt samples anomalous for arsenic-mercury and a few with anomalous gold values. In total 147 soils, 5 rock chips and 6 stream sediment samples were collected and analyzed for gold and arsenic, during the current phase of the exploration programme.

Soil samples were collected from pits excavated with a hand pick to a depth of 15-25 cm. The samples were dug from the pit using a stainless steel scoop, and placed in a gussetted kraft sample bag. The soil samples were collected from B horizon soils, or the best approximation to B soil as possible at each location. Sample size was usually 300 to 500 grams. Silt samples were collected from active silts using a stainless steel scoop or spoon and transferred to a gussetted kraft sample bag. Silt samples commonly exceeded 500 grams in size, particularly if coarse sediments were encountered. This was to insure an adequate quantity of fine sediment for analysis.

Rock chip samples were usually composed of several (three to five) chips from an outcrop of bedrock. Three hundred to 500 grams of sample were collected and placed in a gussetted kraft sample bag.

All samples were shipped to Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. for preparation and analysis.

In the case of soil and silt samples, the samples were dried and sieved with the -100 mesh fraction or a suitable portion of it retained for analysis.

Rock chip samples were crushed and pulverized to -100 mesh and a suitable size portion obtained for analysis.

Gold values were determined by fire assay preconcentration followed by neutron activation analysis.

Arsenic values were determined using a perchloric-nitric acid digestion followed by standard atomic absorption hydride finish.

Gold and arsenic values are presented in map form appended to this report as separate figures (Figures 4 and 5).

The geology, as determined from prospecting and mapping, is also presented on a separate figure appended to this report (Figure 3).

Arsenic Geochemistry

A value of 30 ppm arsenic was arbitrarily chosen as threshold anomalous. This value has been found to represent the lower limit of significant arsenic in similar terrain and conditions elsewhere in the region and on the Island.

Values obtained in the survey ranged from 1-55 ppm As and only 4 samples exceed 30 ppm. These anomalous values all occur in the west

central part of the survey area, but do not cluster or form an obvious pattern. They do not constitute a significant arsenic anomaly by local standards.

Gold Geochemistry

Based on experience in similar terrain elsewhere within the region, a value of 10 ppb gold was selected as the threshold anomalous level. Values obtained range from < 1-195 ppb and 13 samples equal or exceed the threshold level.

The anomalous values form weak clusters occurring in areas which correspond to low sulfide silicification in Karmutsen outcrop or float. The anomalies are not considered to be strong enough or large enough to be significant or warrant further or more detailed mapping. However, a short traverse and a bit more sampling and mapping in the vicinity of X-31 - 195 ppb Au would be in order at the next opportunity.

CONCLUSIONS AND RECOMMENDATIONS

The current programme has indicated that the southeast corner of Richardson Island is not likely to contain significant gold mineralization. A short traverse to evaluate the 195 ppb Au value in soil at X-31 is in order if there is an opportunity to do so prior to the next assessment date, at which time the claims could be reduced to exclude the southeast part of the island.

Conclusions and recommendations made after the second phase of work in 1981 remain valid and more mapping and sampling are required to the north.

Respectfully submitted,

James S. Christie, Ph.D.

COST STATEMENT

FOUR CORNERS #1-#4---1984 PROGRAMME

J.S. Christie, Geologist	May 24-27	4 days @ $250	$ 1,000.00
S. Courte, Technician	May 24-27	4 days @ $150	600.00
Boat rental: Canova inflatable - 20 hp obm		4 days @ $ 50	200.00
JMT - Camp rental			50.00
Truck rental - JMT van		2 days @ $ 60	120.00
SBX-11 Radiotelephone rental			50.00
Meals - 8 workdays @ $30			240.00
Airfares - PWA - 2 men - one way Vancouver-Sandspit			306.70
PWA - Freight share			132.50
Hudson Supplies - #47445 Technical supplies			138.75
Chemex Labs - #3136-3137			1,640.10
Report, including drafting and duplication			750.00
TOTAL			$ 5,228.05

STATEMENT OF QUALIFICATIONS

I, James S. Christie of Vancouver, British Columbia, do hereby certify that:

1. I am a Professional Geologist residing at 3921 West 31st Avenue, Vancouver, B.C., V6S 1Y4.
2. I am a graduate of the University of British Columbia, B.Sc., Honours Geology, 1965; Ph.D. Geology, 1973;
3. I have practised 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.
6. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

James S. Christie, Ph.D.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,760

JMT SERVICES CORP.

FOUR CORNERS MINERAL CLAIMS

SKEENA MINING DIVISION — NTS 103 B / 12 + 13

G E O L O G Y

Survey by 1:50 000 Map Enlargement, Hip Chain, Compass & Barometer

SCALE 1:5000

0 100 200 300 400 500

METRES

FIG. 3

L E G E N D

- Soil sample location
- Silt " "
- Rock " "
- R353 Sample number
- Geologic contact
- Assumed fault
- Outcrop

5 Diorite

4 Masset rhyolite ± andesite, ± basalt

3 Yakun argillaceous volcanics etc.

2 Kunga limestone — argillite

1 Karmutsen greenstone

1a Grey limestone Part of karmutsen

CLAIM BOUNDARY

Claim Boundary

* NOTE: D 313 – D 337 SAMPLES ARE FARTHER UPSLOPE THAN INDICATED ON MAP. ACTUAL POSITION IS INDICATED BY LINE

D 313 ACTUAL LOCATION

N

CAMP

LCP

Slide

grey limst.

crs volcanic intrusive.

qtz vein

rhy dike

w. diorite dyke

X diorite

microdiorite

J.M. SERVICES CORP.

FOUR CORNERS MINERAL CLAIMS

SKEENA MINING DIVISION — NTS 103 B / 12 + 13

GOLD GEOCHEMISTRY

Survey by 1:50 000 Map Enlargement, Hip Chain, Compass & Barometer

SCALE 1:5000

0 100 200 300 400 500

METRES

FIG. 4

L E G E N D

- ⊙ Soil sample location
- □ Silt " "
- △ Rock " "
- ○ R353 Sample number
- 38/34 Arsenic ppm(As), Gold ppb (Au)
- ——— Geologic contact
- ~~~ Assumed fault
- Outcrop
- ● >9 ppb. Au.
- — — 10 ppb. Au.

CLAIM BOUNDARY

← Claim Boundary

* NOTE: D 313- D 337 SAMPLES ARE FARTHER UPSLOPE THAN INDICATED ON MAP. ACTUAL POSITION IS INDICATED BY LINE

Slide

LCP

CAMP

qtz vein

crs volcanic intrusive.

gray ilmst.

X dioritic

dyke

micrdi-orite

N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,760

JMT SERVICES CORP.

FOUR CORNERS MINERAL CLAIMS

SKEENA MINING DIVISION — NTS 103 B / 12 + 13

ARSENIC GEOCHEMISTRY

Survey by 1:50 000 Map Enlargement, Hip Chain, Compass & Barometer

SCALE 1:5000

0 100 200 300 400 500

METRES

FIG. 5

L E G E N D

- ⊙ Soil sample location
- □ Silt " "
- △ Rock " "
- ○ R353 38/34 Sample number, Arsenic (As) ppm, Gold (Au) ppb.
- ——— Geologic contact
- ~~~ Assumed fault
- Outcrop
- ⊙ > 29 < 100 ppm As
- ● > 99 ppm As
- ——·—— 30 ppm As

CLAIM BOUNDARY

Claim Boundary

* NOTE: D 313 D 337 SAMPLES ARE FARTHER UPSLOPE THAN INDICATED ON MAP. ACTUAL POSITION IS INDICATED BY LINE

Slide

CAMP

LCP

qtz vein

crs volcanic intrusive

grey limst.

micrdi-X

X diorite

w. diorite dyke

500

1000

1500