ASSESSMENT REPORT

091897

GEOLOGICAL MAPPING AND GEOCHEMICAL SAMPLING HO 1-20 CLAIMS (YA82047-YA82054,YA82985-89966) ISLAND 1-12,13FR (YA94330-94342) AND CAT TRENCHING ON THE HO-2 CLAIMS (YA82048)

Whitehorse Mining District

105D-3,4
Latitude 60 10'N
Longitude 135 10'W
August 8 to September 26,1986

for
ISLAND MINING and EXPLORATION CO.LTD.
706-595 Howe Street
Vancouver,B.C.,V6C 2T5

by
T.GARAGAN
AURUM GEOLOGICAL CONSULTANTS INC.
1614-675 West Hastings Street,
Vancouver,B.C.,V6B 4W3

December 10,1986

091897

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 12,400.00 .

D D Emond

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

SUMMARY

Island Mining and Exploration Co.Ltd's and Shakwak Exploration Company Ltd's CHARLESTON property consisting of 32 claims, 1 fractional claim and 1 crown grant (12 claims,1 Fr 100% owned by Island Mining) are located near the headwaters of the Watson River, Skukum Creek and Berney Creek, 65km (40 miles) southwest of Whitehorse. The property has become an attractive exploration target with the development of the Mt. Skukum gold deposit 4km (2.5 miles) to the north and the discovery of Omni's Skukum Creek gold deposit 6km (3.7 miles) to the southeast. Access to the property has been greatly improved with the building of a 4 by 4 tote road in October.

The Charleston North vein was first dicovered in 1907 and exploration (including 2 short adits) has continued intermittenly since. Island Mining and Explortion Co.Ltd. optioned the property in 1986 and exploration consisted of geological mapping, prospecting, grid establishment, cat trenching, and geochemical sampling.

The CHARLESTON property, located at the southwest corner of the Tertiary Mt.Skukum caldera complex is underlain by Pre-Cambrain metasediments intruded by quartz diorite. Intense faulting has controlled the emplacement of precious metal bearing quartz veins and rhyolite and andesite dykes.

Geological mapping and sampling has extended the known length of the Charleston vein in outcrop and boulders by 430m (1410') for a total length of 700m (2300'). The vein contains precious metal values along its entire length with values up to 1.98 opt gold and 2.99 opt silver in boulder samples and 0.88 opt gold , 8.08 opt silver over 0.77m (2.5') and 0.34 opt gold and 30.72 opt silver over 2m (6.6') in chip samples. The potential for locating an economic ore shoot along this vein is very good and further exploration is warranted.

Four additional precious metal bearing veins have also been located and have good potential for the location of economic mineralization. Much of the property has not yet been explored and considering the success to date (basically 4 days of field work), the potential for locating other veins is great.

CONCLUSIONS

Exploration during the 1986 field season has located four new veins and has extended the known length of the Charleston vein for an additional 430m (1410'). The Charleston vein consists of a 700m (2300') long by, up to at least 2m wide (6.6') bull quartz vein which contains economic gold and silver values in outcrop, subcrop and boulders along its entire length. The potential for locating an economic ore shoot is good and exploration should be concentrated around vein swells and at the intersection of the Charleston vein with east-west faults. The initial exploration should be carried out in the easier accessible Charleston south area.

Three of the four other veins are similar to the Charleston vein, but require much more work to determine their economic potential.

Geologically, the veins occupy fault structures within propylitized and locally sericitized quartz diorite with spatially related rhyolite and andesite dykes. The extensive faulting in the area, the abundance of rhyolite and andesite dykes and the presence of several unexplained geochemical anomalies indicate the potential for locating more veins on the property.

The results of the 1986 program warrant an aggressive followup program which should include diamond drilling. The property should be well mapped, prospected and geochemically sampled to locate more veins. Detailed exploration should be concentrated on the known veins to locate areas of economically potential ore shoots.

RECOMMENDATIONS

1. Upgrade and clean road prior to mobilization.

2. Extend soil grid to include veins #2 and #3 and to geologically map the grid in detail.

3. Deepen cat trenches #1 and #2 to locate the surface trace of the Charleston vein and splay in order not to waste diamond drill footage.

4. Diamond drilling(NQ) core totalling 5000'on the Charleston south vein, part of the Charleston north vein and along veins #2, 3 and 5 if warranted.

5. Detailed mapping and sampling of veins #2, 3 and 5 to be carried out at the same time drilling is being carried out on the Charleston vein.

6. Followup soil geochemical anomalies and prospect, map and sample the remainder of the property in order to locate other mineralized veins.

TABLE OF CONTENTS

List of Figures

List of Appendices

INTRODUCTION

This report was prepared at the request of Mr.E.Bergvinson of Island Mining and Exploration Co.Ltd. and describes the exploration work carried out under the supervision of Aurum Geological Consultants Inc. on the CHARLESTON property during the 1986 field season. Exploration consisted of geological mapping, prospecting, grid establishment, cat trenching, soil and rock geochemistry and the building of an access road.

LOCATION AND ACCESS

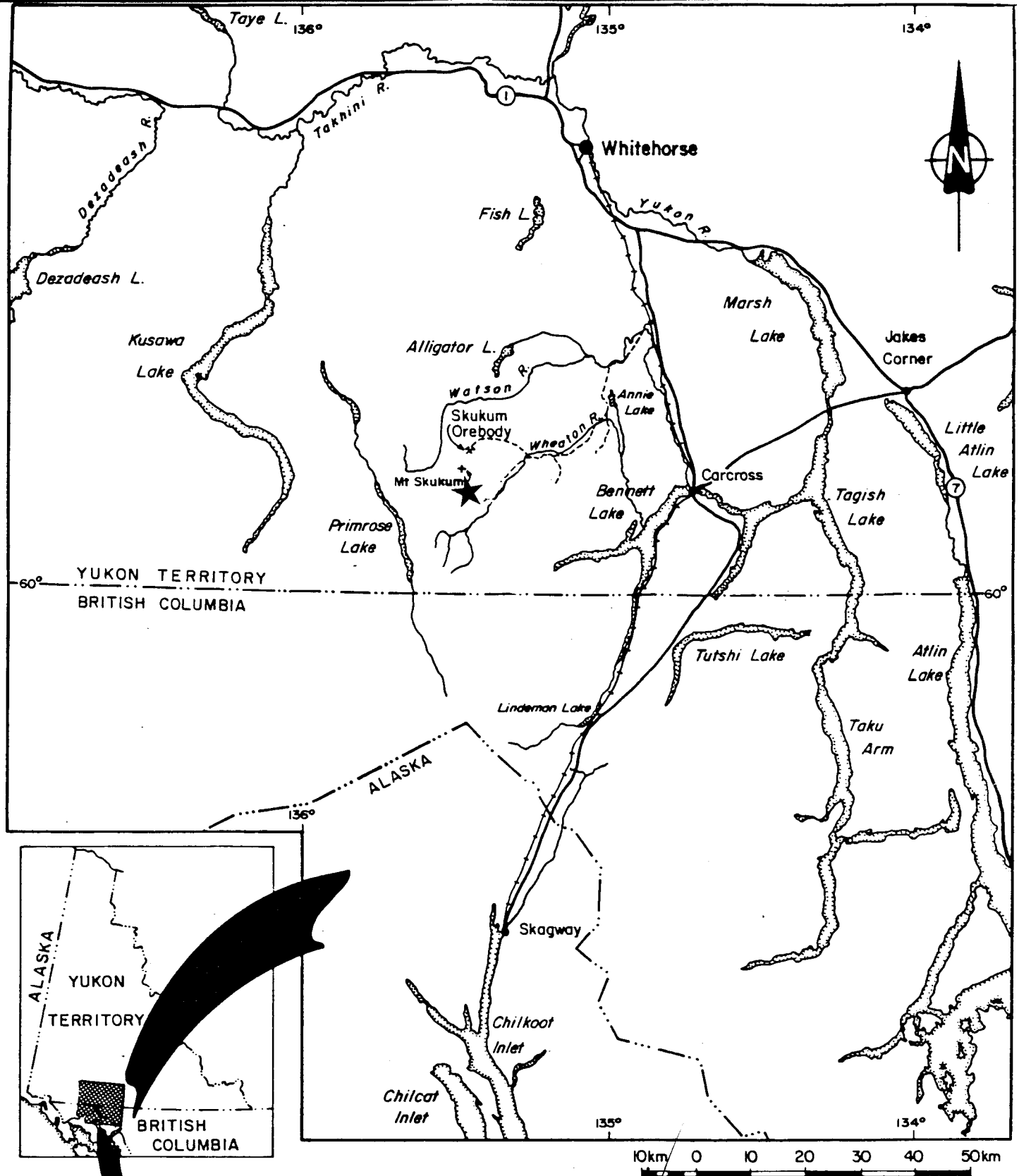
The CHARLESTON property is located at the headwaters of Skukum creek, Berney creek and the Watson River, approximately 65 kilometers (40 miles) south west of Whitehorse, Yukon Territory. The property is located in the Wheaton River District, 4 km south of the Mt.Skukum gold deposit at 60 10`N latitude and 135 30`W longitude (figure 1).

Access to the Wheaton River district is by an all weather road (Annie Lake road) leading from the Klondike highway (Whitehorse -Carcross road) to the Mt.Skukum minesite. A two wheel drive road leads from the Annie Lake road near the Mt.Skukum mill to Omni's Skukum Creek camp 6 km (3.7 miles) south east of the CHARLESTON property. A 4 by 4 tote road from the Skukum Creek property up Berney creek to the south central part of the CHARLESTON property has recently been completed. This road will need to be upgraded in the spring.

Alternate access is via helicopter from Whitehorse or a seasonal base at the junction of the Wheaton River and Becker creek, 19 km (11.8 miles) east of the property.

CLAIM STATUS

The CHARLESTON property consists of 32 claims, one fractional claim and one crown grant. The HO 1-2 claims are under option from Shakwak Exploration Co.Ltd. The CHARLESTON crown grant is in turn optioned by Shakwak Exploration Co.Ltd.from D.Watson of 316 Park Blvd., Winnipeg. The ISLAND 1-12,13 Fr claims are 100% owned by Island Mining and Exploration Co.Ltd. All claims are



ISLAND MINING and EXPLORATION Co.Ltd.

CHARLESTON PROPERTY

LOCATION

Aurum Geological Consultants Inc.		January, 1986
Drawn by N.H.	Checked by	Scale 1:1,000,000 FIGURE 1

staked under the Yukon Quartz Mining Act within the Whitehorse Mining District.

The claim status is tabulated below:

Claim_name	Grant_Numbers	Claim_Sheet	Expirary_Date
ISLAND 1-12,13Fr	YA94330-342	105D-4	March 18,1987
HO 1-8	YA82047-054	105D-3	March 4,1990
HO 9-20	YA82985-996	105D-3,4	March 4,1990
CHARLESTON C.G.	18089	105D-3,4	January 15,2000

The claim distribution is shown in Figure 2.

CLIMATE,TOPOGRAGPHY AND VEGETATION

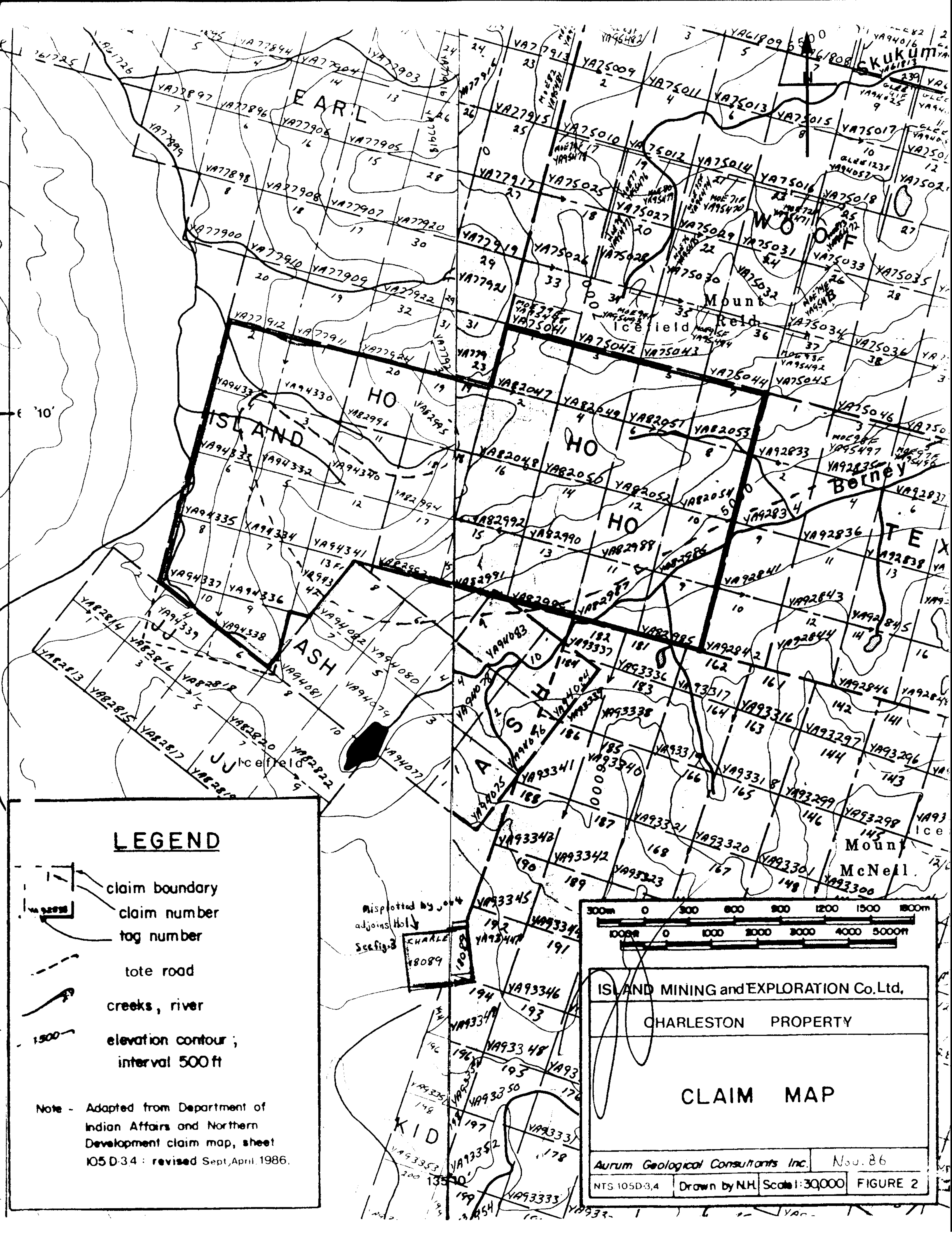
The climate in the Wheaton River area is variable, with cool summers and long, cold winters. Precipitation is light (40 cm annually), with moderate snow falls during the winter months. The area is susceptible to periodic high winds from moist Pacific systems rising over the Coast Mountains. The exploration season extends from mid-May through to September/October. The Exploration season on the CHARLESTON property is much shorter (mid-June to September) due to steeper terrain, higher elevation and a much later snow melt.

The topography of the CHARLESTON property is steep with elevations varying between 2225m (7300') and 1490m (4900'). The north half of the property consists of steep cliffs surrounding a rock glacier filled cirque. The south half of the property is composed of frost heaved and talus covered slopes drained by rock filled creeks. Water in the creeks flow between late June and September.

Most of the property is above the treeline and stumped willow, alpine grasses and shrubs occur at the lower elevations.

HISTORY

The Charleston vein was discovered in 1907 following the staking and prospecting rush brought on by the discovery of free gold and tellurides on Gold Hill. The property was acquired


LEGEND
claim boundary
claim number
tag number
tote road
creeks, river
elevation contour; interval 500 ft
Note - Adapted from Department of Indian Affairs and Northern Development claim map, sheet 105 D 3,4 : revised Sept, April 1986.
ISLAND MINING and EXPLORATION Co. Ltd.
CHARLESTON PROPERTY
CLAIM MAP
Aurum Geological Consultants Inc.
Nov. 86
NTS 105D-3,4
Drawn by N.H.
Scale 1:30,000
FIGURE 2
EARL
ISLAND
HO
WOOF
TEX
ASH
JJ
KID
CHARLE
Mount Reid
Icefield
Mount McNeil
Skukum
Berney
misplotted by 644 adjoins Hol
See fig. 3

by Mathew Watson from J.Hume in 1912 and some trenching and prospecting was carried out until 1921 when the Slate Creek Mining Company under J.M.Elmer optioned the property (Cockfield,1922). A 61m (200') adit was driven into the vein in 1921. The vein pinched to 6" near the back of the adit and no work was done to determine whether the vein actually died out or swelled again. A second 30m (100') adit located approximately 40m (130') north of the original adit, is presumed to have been driven in the vein shortly after 1921 (equipment is still there), although the exact date has not been reported. The property was returned to the Watson family in 1922. Twenty-five samples taken over "2000'" of the vein were taken by W.M.Ross in 1934 and were reported to average 0.344 ounces per ton gold and 8.36 ounces per ton silver over an average width of 2.1 feet (Wheeler,1961). The CHARLESTON Mineral Claim was surveyed in August,1955 and approved for lease on August 7,1957. The BUD claims were staked by Yukon Antimony Corp. immediately south of the crown grant in 1964 and were subsequently allowed to lapse.

Very little work was carried out in the area until the 1980's when the Nat joint venture staked a gold, arsenic and lead stream sediment anomaly immediately north of the Crown Grant. The source of the anomaly was not located and the claims were allowed to lapse (Onasick and Archer,1981). The crown grant was optioned from Douglas Watson by Shakwak Exploration Co. Ltd. in 1984. The HO claims were also staked at this time. A program of trenching and mapping was carried out in 1984 and a brief sampling and prospecting program was completed in 1985. The vein was extended 150m beyond the original workings.

The property was optioned by Island Mining and Exploration Co.Ltd. in the spring of 1986. The ISLAND claims were staked in March,1986.

REGIONAL GEOLOGY

The CHARLESTON property is situated near the eastern margin of the Coast Plutonic Complex. The regional geology has been described by Cairnes,1912, Wheeler,1961 and Lambert,1974.

The Coast Plutonic Complex consists of foliated and non-foliated granitoid rocks which intrude and underlie low grade

metamorphosed sediments and volcanics of the Mesozoic Whitehorse-Nechako Trough and quartzites, schists and gniesses of the Early Paleozoic Yukon Group.

Subaerial rhyolite and andesite flows and pyroclastics of the Tertiary Skukum Group occur in two isolated areas in the region. The two isolated areas, Mt.Skukum and Bennett Lake, have been interpreted to represent paleovolcanic centers (Lambert, 1974;Doherty,perscomm,1982 and Pride,1985). The CHARLESTON property occurs near the south west corner of the Mt.Skukum complex. Late stage rhyolite and andesite dykes and plugs related to the Skukum volcanics cut the Skukum group and surrounding rocks.

The regional structural trend is northwest which is cut by later Tertiary structures. The CHARLESTON property occurs near the junction of the Tertiary Berney Creek fault (E-W) and an unnamed north-south fault. Both appear to be marginal faults to the Mt.Skukum caldera (Pride,1985).

GEOLOGY OF THE CHARLESTON PROPERTY

The CHARLESTON property is underlain by Cretaceous quartz diorite, diorite and granodiorite of the Coast Crystalline Complex which intrudes quartzites, schists and metadiorites of the late Precambrian Yukon Group. Tertiary rhyolite,dacite and andesite dykes cut all earlier units. The dykes often follow pre-existing structures and are cut by later faults (figure 3 & 5).

The Yukon Group rocks consist of grey to rusty weathering quartzites, metawackes, minor marble, metavolcanics and metadiorites. The unit outcrops on the northern, eastern and northwestern part of the property. Two small roof pendants of the Yukon Group quartzite also outcrop in the southcentral part of the property. Quartzites are more common in the east while metawackes and metavolcanics dominate in the west. The foliation within the Yukon Group trends northwesterly with a northeasterly dip.

The Yukon Group is intruded by and is in fault contact with the Cretaceous Coast Crystalline Complex quartz diorite, diorite and granodiorite. The quartz diorite is the most common unit

with granodiorite and diorite only occurring in the southern and southwestern parts of the property. The quartz diorite consists of a medium grained to coarse grained equigranular granitoid rock with 20-30% interstitial mafics (hornblende-biotite) and approximately 5% quartz. The intrusive is weakly to moderately chlorite-epidote altered in the areas of dyking and veining and is moderately to strongly sericitized adjacent to the veins.

Narrow to 10m wide fine grained quartz porphyritic rhyolite, aphanitic rhyolite, flow banded rhyolite, fine grained dacite and fine grained (locally porphyritic) andesitic dykes cut all earlier units on the property. The dykes occupy and are parallel to different stages of faults and veins on the property. In general, it appears that some of the andesite dykes are later than the rhyolite and dacite dykes; as the andesites occasionally cross cut the rhyolite dykes, while the reverse has not yet been noted (see figure 3 & 4). The dykes are similar to those seen in other parts of the Wheaton River district, (including within the Mt.Skukum complex) and are presumed to be related to the Skukum volcanics.

The rock units underlying the CHARLESTON property have been cut by numerous faults. At least three major directions of faulting have been noticed. An earlier north, northwesterly direction is occupied by the Charleston vein, several rhyolite and dacite dykes and at least one andesite dyke. The north-south structures have been offset laterally at least 50m (164') by an east-west and a northeast trending fault system. The east-west and northeast faulting are probably related and appear to have significant vertical offset associated with them. In fact, the offset noted along the Charleston vein is as much vertical as lateral.

The CHARLESTON property is located immediately southwest of the intersection of two Skukum complex boundary faults(?); the east-west trending Berney Creek and an unnamed north west trending fault (see Pride,1985). The intense faulting on the property probably represents a series of splay faults which have developed at the confluence of the above major faults. These may have developed due to caldera collapse within the Skukum complex.

MINERALIZATION AND ALTERATION

Four zones of veining have been located on the property. The Charleston vein has been traced an additional 450m (1475') beyond that previously described by Shakwak (Wallis,1985). The # 2,3 and 4 veins have not been described before (see figure 4).

The Charleston vein has been traced for approximately 300m (984') in outcrop along a cliff face (and in 2 adits - circa 1920's) (Charleston North) and in boulders and subcrop for an additional 400m (1312') beyond a 50m (164') fault offset (Charleston South). The Charleston North vein pinches and swells between 0.2m (0.7') and at least 2.0m (6.6') wide, trends 135 to 160 and dips between 35 and 45 east. The vein is offset several times by east-west faults and is often bent into the fault zones. In addition, the vein often widens adjacent to the faults. The Charleston North vein appears to fork near the 50m (164') offset fault and the trace of boulders on Charleston South vein zone may represent 3 veins. The width of the Charleston South vein is not known, but the boulder sizes vary between 10cm by 10cm (0.3 by0.3') and 1m (3.3') by 0.75m (25'). The Charleston South vein appears to be offset by approximately 40m (131') near the southern end (see figure 4 for boulder traces of Charleston vein).

The Charleston vein consists of a rusty weathering occasionally vuggy (with quartz crystals filling the vugs) bull quartz vein (minor calcite) with 1 to 15% sulphides. The sulphides consist of predominatly galena and pyrite with minor sphalerite and chalcopyrite (with malachite). Arsenopyrite and stibnite have not been seen and this is reflected in the geochemistry. Barite and free gold have been found in soils panned from weathered veins. The vein often contains vague bands of vuggy quartz, bull quartz and sulphides (probably also barite). The vein occurs in a shear zone within the quartz diorite and often contains thick seams of chlorite and quartz. The quartz diorite is weakly to moderately chlorite altered within 10 (33') to 25m (82') of the vein and is often weakly to strongly sericitized adjacent to the vein.

The #2 vein is located approximately 500m (1650') west of the Charleston South vein and has been traced in boulders and subcrop for 175m (575'). The apparent width of the zone is up to

5m (16'). In outcrop, the vein is strongly leached and consists of bull quartz, druzy quartz (as in the Charleston vein) and brecciated vein material. The vein contains up to 10% Mn and limonite and trace arsenopyrite and galena (only found in boulders). The #2 vein zone trends approximately 045 (dips north?) and is parallel and adjacent to the 50m offset fault which divides the Charleston North and South veins. Boulders of partly sericitized andesite dyke material have been traced parallel to the vein.

The #3 vein , located approximately 600m (1969') northwest of the #2 vein has been traced in float for 50m (165') along a strike of 030. The boulders consist of rusty weathering vuggy bull quartz up to 25 by 30cm (0.8 by 1') with up to 10% limonite and 1-2% bismuth ? (very fine grained,soft,silver,metallic, slightly maleable mineral).

The #4 vein is located in the southwest corner of the CHARLESTON property and is 5 to 15cm (0.2 by 0.5') wide. It is exposed in outcrop for 10m (32.8') and trends 150/45W. The vein consists of bull quartz with up to 20% galena and pyrite and occurs within a joint set in the quartz-diorite.

A 5th mineralized vein represented by several bull quartz boulders is located near the east central part of property along the quartz diorite-Yukon Group contact. Several boulders (3T2006) up to 0.2 by 0.2m (0.6' by 0.6') were found on a talus slope in the east-west cirque facing Berney Creek. No apparent trend has been noted and this vein may be limited in extent.

Three bull quartz veins found by Shakwak (see Wallis, figure 1) appear to be unmineralized (361007-9) and may represent quartz sweats within the Yukon Group metasediments.

EXPLORATION

Introduction

A total of 16 man days were spent on the property between August 8-11,1986; carrying out mapping, prospecting, soil and rock sampling. A small grid (350m long baseline ,200m wing lines every 50m) was established over the Charleston South zone to facilitate mapping and soil sampling. Some follow up rock

sampling was carried out on September 2nd and cat trenching was carried out on September 22,23 and 26th. A tote road was constructed from the Charleston South area to the Omni camp.

Soil Geochemistry

A total of 173 soil samples and 5 talus fine samples were collected on the CHARLESTON property. The 5 talus fine samples were collected at 50 (164') to 200m (656') spacings near the south west corner of the property. Thirty-four of the soil samples were collected at 10 (33') to 25m (82') spacings along the ridge between Charleston South and Charleston North to locate the vein extension beyond the fault offset. The remaining samples were collected on the grid at 25m (82') spacings along 50m (82') spaced wing lines. Samples were collected at 10m (33') spacings in the area of the interpreted trace of the Charleston vein. All soil samples were analysed for gold, silver, arsenic, antimony, lead and zinc. The sample numbers and results are listed in Appendix A and the sample locations with gold and silver results are plotted in figures 4 & 6.

Two coincident gold, silver, lead and zinc anomalies have been located on the Charleston south grid and adjacent soil line. The first anomaly extends from 387015 (roughly BL/0+00)to 2+00S/0+20W to 2+25S/0+20E to 3+50S/1+20E and coincides with the quartz vein boulder train interpreted to represent the southern extension of the Charleston vein. Precious metal values are up to 375 ppb Au (2+00S/0+20W) and 2.3 ppm Ag (3+50S/1+20W). Coincident lead and zinc values are up to 94 ppm and 176 ppm respectively (1+50S/0+20W). The left lateral offset of the geochem anomaly at approximately 2+50S/BL is roughly coincident with a 50m (164') offset in the trend of the boulder trace and is thought to represent an east-west fault which has offset the Charleston vein. The silver values appear to be higher relative to gold south of the fault (up to 2.3 ppm to the south and up to 0.9 ppm to the north).

The second anomaly consists of a broad coincident gold, silver, lead and zinc anomaly which trends from 1+50S/2+00W to sample number 387018 (roughly 0+00S/0+50W). The anomaly trends north-south and is parallel and adjacent to an interpreted splay (based on boulders) off the Charleston vein. Geochemical values

are up to 1520 ppb gold, 1.1 ppm silver, 163 ppm lead and 200ppm zinc.

Other soil geochemical anomalies include 80 and 980 ppb gold at 2+00S/1+50W and 1+75W (may be related to the 2+50S fault), 105 ppb gold, 1.9 ppm silver, 773 ppm arsenic, 116 ppm lead and 339 ppm zinc in sample 387001 (roughly 0+80N,2+80E) and 3.2 ppm silver in sample 387026 (roughly 0+60N/2+50W). The source of these anomalies is not known, but are possibly related to other mineralized structures.

The soil grid should be extended beyond its present coordinates (0+00 to 3+50S/ 2+00W to 2+00E) to help define the extent of the above anomalies.

Rock Geochemistry

A total of 67 rock samples were collected on the CHARLESTON property. Approximately 30 of these were taken along the Charleston vein and splays. Four samples were also collected from the cat trenches and are discussed later. All samples were analysed for gold and silver and several samples were also analysed for lead, zinc, arsenic and antimony. Gold and silver assays were done on many of the samples. Results and sample descriptions are listed in Appendix B and the sample locations and results are plotted in figures 4,5 & 6.

Thirteen chip samples were taken along the 330m long (approx.1080') cliff exposure of the Charleston North vein. One sample was also taken at the face in the lower adit. Eleven samples carried greater than 0.1 opt gold (of which 5 are >0.2opt gold) over 0.4m (1.3') to 2m (6.6') true widths. The best values were 0.411 opt gold, 2.1 opt silver over 0.4m (1.3'), 0.88 opt gold, 8.08 opt silver over 0.77m (2.5') and 0.339 opt gold, 30.72 opt silver over 2m (6.6').

One chip sample (on cliff immediately south of 50m offset fault) and 15 grab samples of boulders were taken from the Charleston South vein trace and interpreted splays. The chip sample (3T1005) contained 0.26 opt gold and 1.98 opt silver over 0.5m (1.6') and grab samples of boulders from the interpreted Charleston South vein contain up to 0.194 opt gold, 2.15 opt silver and 0.146 opt gold and 17.41 opt silver. Samples taken

from the interpeted splays contain up to 1.98 opt gold and 2.99 opt silver and 0.285 opt gold and 2.47 opt silver. The deeply weathered nature of the boulders indicates better gold values may be obtained in fresh rock (ie. drill core). Visible gold was seen in a panned soil sample taken at 0+80S/0+10W (rock samples 3T2001,2) indicating some gold has been weathered from the rock.

The lead and zinc values in the Charleston vein (South, North and splays) range up to 1.8% and 0.18% respectively with the best lead and zinc values not necessarily correlating with the best gold values. Alternatively, there is a good correlation between lead and silver values. Arsenic and antimony values are low in the Charleston vein reflecting the lack of arsenopyrite and stibnite (up to 280 ppm As and 55 ppm Sb).

Surface samples (8), including 1 chip sample taken from vein #2 contain up to 500 ppb gold and 1.3 opt silver over 0.5m (1.6') and 110 ppb gold and 6.8 opt silver. In contrast to the Charleston vein, vein #2 appears to be enriched in arsenic (5% arsenopyrite in unleached samples, up to 3% As) and only slightly enriched in lead and zinc (4156 ppm and 721 ppm respectively). The effect of surface leaching on the precious metal values along vein #2 is not known and better values may also be obtained in fresher rock.

Only one rock sample was collected from each of vein numbers 3, 4,and 5 and these samples contained 1700 ppb gold and 5.7 ppm silver (composite grab of boulders), 1050 ppb gold and 93.1 ppm silver (grab of outcrop) and 230 ppb gold and 0.6 ppm silver (grab boulder) respectively. Vein #4 is too narrow to be economic, but no sampling or mapping and prospecting has been carried out on the plateau immediately to the east of this vein and the potential for the discovery of other veins in the area is good. Much more sampling and mapping should be carried out along #3 and #5 veins to determine their economic potential.

Five rock samples were taken from the bull quartz vein found by Shakwak within the quartzites on the northeast corner of the property and all the samples contained background precious metal values. No further work on these veins is recommended.

Cat Trenching

Nine cat trenches were dug with a D7 cat and a ripper along the Charleston South vein zone to determine the widths of the veins (including splay) and to take samples from fresh outcrop. All the trenches were stopped in permafrost and subcrop was only partially exposed in 2 trenches. Unfortunately, this subcrop did not include vein material. Soil samples were taken at 5m intervals in 8 of the trenches and 4 rock samples were collected from boulders found in 3 trenches. The soil and rock samples were analysed for gold and silver and are listed in Appendix A and B and are plotted in figure 6.

Anomalous gold and silver values were obtained in soil samples collected in trenches 1 to 7. Anomalous values in trenches 1 and 3 to 7 correlate with the Charleston South vein boulder trace and values are up to 430 ppb gold and 2.3 ppm silver. Two samples of quartz vein material collected within frozen overburden in trench #1 contained 0.05 and 0.108 opt gold and 0.12 and 1.04 opt silver. Three soil samples taken near the west end of trench #2 contain 66-440 ppb gold and 0.5 to 1.9 ppm silver and probably represent geochemical values associated with a splay. A 12.5 by 45 cm (0.4 by 1.5') quartz vein boulder found in the ice in trench #2 contain 0.716 opt gold and 1.01 opt silver.

The cat trenches have confirmed the presence of mineralized structures in the Charleston South area. Trenches 1 and 2 should be deepened prior to diamond drilling (after the permafrost has melted more) in order to locate the actual surface trace of the Charleston south vein and splay to prevent wasting holes and footage locating the vein.

Road Building

A cat road was built in late September and early October from the Charleston South cat trenches into the valley to the west, then through the pass to the south and down Berney Creek to the Skukum Creek camp (figure 5). A cat will have to be brought in prior to the commencement of the 1987 field season to clear boulders and fix the road in permafrost areas to facilitate mobilization of the camp and diamond drill.

DISCUSSION

The CHARLESTON property is located at the junction at the E-W Berney Creek fault and an unnamed N-S fault which were developed at the margins of the Skukum caldera, presumably during caldera collapse. Several stages of faulting have developed on the CHARLESTON property as a result and these structures have acted as conduits for mineralizing fluids and andesite, rhyolite and dacite dykes.

Five precious metal bearing veins have been located on the CHARLESTON property and 4 of these appear to occupy pre-existing fault structures (vein #4 occurs within joints in the quartz diorite) within the quartz diorite. The Charleston vein is the most significant vein found to date and has been traced for 330m (1083') in outcrop (Charleston North) and an additional 370m (1214') beyond a 50m offset, in outcrop, subcrop and boulders for a total length of 700m (2297'). The vein pinches, swells, has splays and is cut by several E-W faults. Significant gold and silver values have been obtained along the full length of the structure and the potential for locating an economic ore shoot is very good. Diamond drilling of the structure is warranted and the initial phase should be carried out in the Charleston South area due to the steep terrain present in the Charleston North area. Water can be obtained approximately 500-700m (1640-2300') from the grid (vertical lift approx.200m or 700').

Initial exploration on veins #2 and 3 have outlined in boulders and outcrop, precious metal bearing veins with at least 175m (575') and 50m (165') strike lengths, respectively. These veins are morphologically similar to the Charleston vein, but need much more exploration and mapping to delineate their extent and precious metal content. Vein #5 consists of a series of boulders with gold enrichment and requires much further work to determine its potential.

Much of the CHARLESTON property has not yet been explored. The initial results (largely based on 4 days work) are indicative of the good economic potential and further exploration will likely result in the location of more veins. The relationship between veins, dykes and alteration on the CHARLESTON property has not yet been determined, but exploration on other properties in the area (Mt.Skukum, Omni etc.) has indicated the importance

of mapping veins, faults, dykes and alteration as a guide to mineralization.

RECOMMENDATIONS

The results of the initial exploration on the CHARLESTON property warrant an aggressive followup program. The following program is recommended:

1. Upgrading and cleaning off of the road prior to mobilization.

2. Detailed geological mapping of the grid area and extension of the soil grid to include veins #2 and #3.

3. Deepening of cat trenches #1 and #2 to help locate the actual surface trace of the Charleston South vein and splays in order not to waste diamond drill footage.

4. Diamond drilling with NQ core totalling 5000' on the Charleston South vein, part of the Charleston north vein and on veins #2, 3 and 5 if warranted.

5. Detailed mapping and sampling of veins #2, 3 and 5 maybe carried out at the same time drilling is being carried out on the Charleston vein.

6. Prospecting, mapping and geochemical sampling on the remainder of the property to locate other mineralized structures. Followup soil geochemical anomalies.

This program should be commenced as soon as the snow clears due to the short field season on the CHARLESTON property (Mid-June,July to mid-September). The following budget is recommended for the above program.

Geological (1 project geologist,1 senior assistant 2 students)	: 45,000
Road upgrading, trenching,site preparation (blasting and cat)	: 30,000

Diamond Drilling (NQ): 5000ft	: 120,000
Analytical	: 20,000
Camp costs (shared with Diamond Driller)	: 20,000
Surveying	: 5,000
Subtotal	: 240,000
Contigency (10%)	: 24,000
Total Budget	: 264,000

If initial results are encouraging an additional 5,000 to 10,000 feet of diamond drilling maybe required.

REFERENCES

Cairnes, D.D.,1912: Wheaton District, Yukon Territory, G.S.C. Memoir 31.

Cockfield, W.E.,1922: Exploration in Southern Yukon, in Yukon Territory, Selected field Reports of the G.S.C.1898 to 1933, Bostock Ed.,G.S.C. Memoir 284.

Lambert, M.B.,1974: The Bennett Lake Cauldron Subsidence Complex, British Columbia and Yukon Territory, G.S.C. Bulletin 227.

Onasick, E.P.and Archer,A.R.,1981: Geochemical and Geological Report, Nat joint venture, Nomen Dubium 1-24 claims NTS 105D/3-4, Whitehorse Mining District Assessment Report.

Pride, M.G.,1985: Preliminary Geological Map of the Mt.Skukum volcanic complex, 105D/2,3,4,5. Exploration and Geological Services Division, Yukon,Indian, and Northern Affairs, Cananda, open file,1:25,000 scale map.

Wallis,J.E.,1985: Preliminary Evaluation Report on the CHARLESTON Property, Wheaton River, Yukon. Internal report for Shakwak Exploration Company Ltd., Whitehorse, Y.T.

Wheeler,J.O.,1961: Whitehorse Map Area, Yukon Territory, 105D. Memoir 312.

LEGEND

TERTIARY

- [4] ANDESITE DYKES
- [3] RHYOLITE AND DACITE DYKES

CRETACEOUS

- [2] QTZ DIORITE

PRECAMBRIAN

- [1] YUKON GROUP: METASEDIMENTS, METADIORITE
- ⊥ ⊥ ⊥ ⊥ RIDGE (ARROW INDICATES CLIFF DIRECTION)
- ~ ~ ~ ~ ~ ~ MAJOR FAULTS
- ——— – – – APPROXIMATE TRACE OF VEINS
- (1) CHARLESTON & EXTENSION Qtz Au-Gn-Sp-Cp-Asp
- (2) UNNAMED Qtz (Asp-Gn)
- (3) UNNAMED Qtz (Bi)
- (4) UNNAMED Qtz-Gn-Py-Cp

NOTE:
MAP DRAWN FROM AIRPHOTOS FLOWN BY THOMPSON/NILES #NW43985-117,96
∴ NOT CORRECTED FOR MARGIN DISTORTIONS.

ISLAND MINING AND EXPLORATION CO. LTD.

SIMPLIFIED GEOLOGY
CHARLESTON PROPERTY
091897

AURUM GEOLOGICAL CONSULTANTS INC.		DATE: NOV. 1986
BY: T.G.	DRAWN BY: T.G.	FIGURE No: 3

SCALE 1:2500

0 10 20 30 40 50 100m

LEGEND

GEOLOGICAL CONTACT : DEFINED, ASSUMED

FAULT

TRACE OF VEIN IN OUTCROP (ARROW INDICATES DIP DIRECTION)

POSSIBLE TRACE OF VEIN, CHARLESTON SOUTH

QUARTZ VEIN BOULDERS

CLIFF, ARROW INDICATES DOWNSIDE

ROCK GLACIER, TALUS

ADIT

GRID

TERTIARY ?

[3] ANDESITE

[2] RHYOLITE, DACITE

CRETACEOUS

[1] QUARTZ DIORITE

3T1001: .411, 2.1 / .4m : CHIP SAMPLE Au, Ag OUNCES PER TON / INTERVAL

7032 • 3 / 0.1 SOIL SAMPLE Au ppb : NOT INCLUDED IN 1:1000 SCALE GRID MAP
Ag ppb

ISLAND MINING AND EXPLORATION CO. LTD.

GEOLOGICAL SKETCH OF CHARLESTON VEIN AND GEOCHEMISTRY OF CHARLESTON NORTH VEIN

091897

AURUM GEOLOGICAL CONSULTANTS INC.

DATE: NOV. 1986

FIELDWORK BY: T.G., R.Z., P.G., E.B.

DRAWN BY: T.G.

FIGURE No: 4

N

LEGEND

- • 327173 : 2, 0.1 SOIL SAMPLE : Au, Ag
- x 3T1010 : 500, 41.4/.5 ROCK CHIP SAMPLE : Au, Ag / interval
- x 3T1007 : 18, 0.4 ROCK GRAB SAMPLE : Au, Ag
- All Au and Ag in ppb and ppm respectively unless otherwise indicated
- Ho/Tex / KID — CLAIM BOUNDARIES — CCG — CHARLESTON CROWN GRANT
- 325° ← → 145° GRID
- POST 1 HO1, HO2
- POST 2 HO1, HO2
- POST 1 HO3, HO4
- △ SURVEY PTS.
- ① 3L204WT 158
- ② 51204WT 625
- ③ SURVEY PT. 459CLS 1985 : 2094 m

- ADIT
- CABIN
- CATROAD
- CONTOUR INTERVAL 100'

TERTIARY

- [4] ANDESITE
- [3] RHYOLITE, DACITE

CRETACEOUS

- [2] QUARTZ DIORITE, GRAN. DIORITE

PRECAMBRIAN

- [1] YUKON GROUP, META SEDIMENTS, META DIORITE
- GEOLOGICAL CONTACT : (DEFINED, ASSUMED)
- FAULT
- VEIN : (DEFINED, APPROXIMATE) ARROW INDICATES DIP DIRECTION

SCALE 1:10,000
0 100m 300m

ISLAND MINING & EXPLORATION CO. LTD.

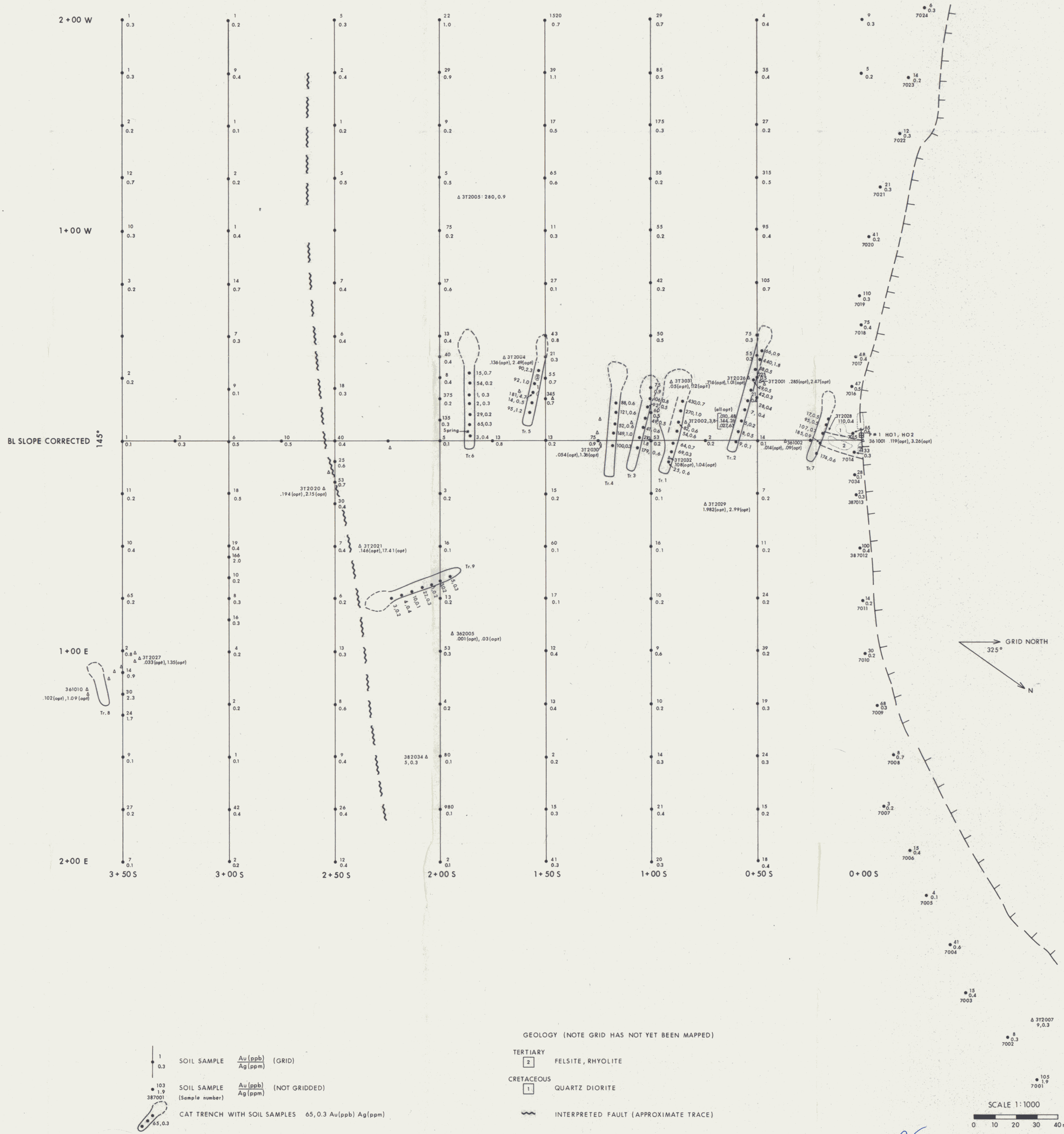
CHARLESTON PROPERTY

GEOLOGY AND GEOCHEMISTRY

091897

AURUM GEOLOGICAL CONSULTANTS INC.

FIELD WORK BY:	DRAWN BY:	FIGURE:	DATE:
T.G., P.G., G.N., M.V.	PRECISE DRAFTING SERVICES	5	NOVEMBER, 1986



SOIL SAMPLE Au(ppb) / Ag(ppm) (GRID)

SOIL SAMPLE Au(ppb) / Ag(ppm) (NOT GRIDDED) (Sample number)

CAT TRENCH WITH SOIL SAMPLES 65, 0.3 Au(ppb) Ag(ppm)

QUARTZ VEIN RUBBLE

ROCK SAMPLE, QUARTZ VEIN RUBBLE

.102(opt), 1.09(opt) Au, Ag all in ppb and ppm unless otherwise indicated: (opt) ounces per ton

CLAIM POST POST # 1 HO1, HO2

CLIFF: ARROW INDICATES DOWNSIDE

GEOLOGY (NOTE GRID HAS NOT YET BEEN MAPPED)

TERTIARY
2 FELSITE, RHYOLITE

CRETACEOUS
1 QUARTZ DIORITE

INTERPRETED FAULT (APPROXIMATE TRACE)

OUTCROP

SCALE 1:1000

0 10 20 30 40 m

ISLAND MINING & EXPLORATION CO. LTD.

CHARLESTON SOUTH GRID
GEOLOGY, GEOCHEMISTRY AND CAT TRENCHING

091897

AURUM GEOLOGICAL CONSULTANTS INC.

FIELD WORK BY:	DRAWN BY:	FIGURE:	DATE:
T.G., P.G., M.V., G.N.	PRECISE DRAFTING SERVICES	6	NOVEMBER, 1986

APPENDIX A
SOIL GEOCHEMICAL RESULTS

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
0+00 2+00W	29	72	.3	8	2	9
0+00 1+75W	19	71	.2	6	2	5
0+50S 2+00W	30	88	.4	15	2	4
0+50S 1+75W	21	66	.4	41	2	35
0+50S 1+50W	68	121	.2	14	2	27
0+50S 1+25W	68	104	.5	14	2	315
0+50S 1+00W	79	99	.4	22	2	95
0+50S 0+75W	163	200	.7	31	2	105
0+50S 0+50W	35	96	.3	27	2	75
0+50S 0+40W	38	86	.3	28	2	55
0+50S 0+30W	53	115	.5	43	2	225
0+50S 0+20W	33	95	.4	37	2	21
0+50S BL	24	83	.1	14	2	14
0+50S 0+25E	27	86	.2	13	2	7
0+50S 0+50E	19	84	.2	12	3	11
0+50S 0+75E	21	84	.2	10	3	24
0+50S 1+00E	17	87	.2	11	2	39
0+50S 1+25E	23	86	.3	11	2	19
0+50S 1+50E	28	85	.3	13	3	24
0+50S 1+75E	25	85	.2	15	2	15
0+50S 2+00E	28	90	.4	22	2	18
0+75S BL	23	87	.2	13	2	2
1+00S 2+00W	102	136	.7	12	2	29
1+00S 1+75W	55	93	.5	18	2	85
1+00S 1+50W	39	81	.3	19	2	175
1+00S 1+25W	22	77	.2	10	2	55
1+00S 1+00W	44	88	.2	21	2	55
1+00S 0+75W	35	86	.2	26	2	42
1+00S 0+50W	38	102	.5	18	2	50
1+00S 0+25W	86	126	.9	26	2	75
1+00S 0+12W	40	101	.5	44	3	60
1+00S BL	23	88	.2	14	2	53
1+00S 0+25E	22	84	.1	12	3	26
1+00S 0+50E	16	81	.1	13	2	16
1+00S 0+75E	31	88	.2	11	2	10
1+00S 1+00E	42	100	.6	15	2	9
STD C/AU-0.5	39	141	7.3	40	15	515

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
1+00S 1+25E	22	72	.2	11	2	10
1+00S 1+50E	29	107	.3	19	3	14
1+00S 1+75E	26	98	.4	18	2	21
1+00S 2+00E	22	80	.3	20	2	20
1+25S BL	40	95	.9	22	5	75
1+50S 2+00W	25	95	.7	9	3	1520
1+50S 1+75W	38	114	1.1	10	2	39
1+50S 1+50W	34	85	.5	16	2	17
1+50S 1+25W	39	97	.6	11	2	65
1+50S 1+00W	22	73	.3	10	3	11
1+50S 0+75W	23	74	.1	13	2	27
1+50S 0+50W	48	111	.8	22	2	43
1+50S 0+40W	48	91	.3	9	2	21
1+50S 0+30W	48	110	.7	18	5	55
1+50S 0+20W	94	176	.7	16	5	345
1+50S BL	25	81	.2	10	4	13
1+50S 0+25E	23	76	.2	9	2	15
1+50S 0+50E	23	76	.1	10	2	60
1+50S 0+75E	24	80	.1	11	2	17
1+50S 1+00E	28	96	.4	21	2	12
1+50S 1+25E	22	98	.4	18	2	13
1+50S 1+50E	15	76	.2	9	2	2
1+50S 1+75E	21	89	.3	20	2	15
1+50S 2+00E	25	104	.3	20	2	41
1+75S BL	45	98	.8	8	2	13
2+00S 2+00W	33	100	1.0	14	2	22
2+00S 1+75W	29	100	.9	28	2	29
2+00S 1+50W	14	82	.2	9	4	9
2+00S 1+25W	23	92	.5	12	2	5
2+00S 1+00W	22	76	.2	12	2	75
2+00S 0+75W	35	101	.6	17	2	17
2+00S 0+50W	34	90	.4	18	2	13
2+00S 0+40W	32	91	.4	16	3	40
2+00S 0+30W	37	108	.4	18	3	8
2+00S 0+20W	27	86	.2	19	4	375
2+00S 0+10W	36	100	.3	18	4	135
STD C/AU 0.5	39	140	7.4	41	16	510

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
2+00S BL	22	82	.1	19	2	5
2+00S 0+25E	22	88	.2	28	4	3
2+00S 0+50E	19	82	.1	14	2	16
2+00S 0+75E	17	80	.2	16	2	13
2+00S 1+00E	26	101	.3	25	2	53
2+00S 1+25E	20	87	.2	23	3	4
2+00S 1+50E	18	75	.1	17	2	80
2+00S 1+75E	16	75	.1	16	2	980
2+00S 2+00E	15	71	.1	21	2	2
2+50S 0+10E	36	110	.6	31	3	25
2+50S 0+20E	28	97	.7	26	2	53
2+50S 0+30E	28	103	.4	30	2	30
2+50S 0+50E	21	112	.4	46	3	7
2+50S 0+75E	17	80	.2	23	4	6
2+50S 1+00E	20	106	.3	61	3	13
2+50S 1+25E	25	140	.6	83	3	8
2+50S 1+50E	30	143	.4	47	2	9
2+50S 1+75E	24	147	.4	34	2	26
2+50S 2+00E	33	208	.4	44	2	12
2+25S BL	14	77	.1	20	2	1
STD C/AU-0.5	42	141	7.3	39	15	500

ACME ANALYTICAL LABORATORIES LTD.
852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 13 1986

DATE REPORT MAILED: Aug 23/86

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: SOILS -80MESH AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.
P4- Rocks

ASSAYER: D. Toye. DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

ISLAND MINING FILE # 86-2013

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
327173	14	71	.1	5	2	2
327175	16	73	.3	4	2	1
327176	26	122	.3	9	2	2
327177	29	111	.3	19	2	6
327178	34	127	.5	22	2	5
387001	116	339	1.9	773	7	105
387002	23	89	.3	40	2	8
387003	25	88	.4	39	2	15
387004	56	92	.6	67	2	41
387005	18	85	.1	15	2	4
387006	21	102	.4	22	2	15
387007	27	97	.2	19	2	3
387008	32	103	.7	15	2	8
387009	59	93	.3	14	2	68
387010	31	96	.2	10	2	30
387011	23	90	.2	7	2	14
387012	49	84	.4	7	2	100
387013	38	78	.3	12	2	23
387014	37	77	.3	9	2	33
387015	58	130	.6	13	2	65
387016	79	100	.5	21	2	47
387017	39	77	.4	36	902 ?	48
387018	29	80	.4	52	2	75
387019	43	101	.3	23	2	110
387020	47	80	.2	15	2	41
387021	28	71	.3	9	2	21
387022	41	73	.3	9	2	12
387023	25	84	.2	5	2	14
387024	18	69	.3	8	2	6
387025	21	72	.4	16	2	3
387026	39	92	3.2	10	2	25
387027	16	60	.5	3	2	6
387028	15	68	.3	7	2	3
387029	17	58	.2	6	2	3
387030	13	84	.2	9	2	1
387031	13	67	.2	8	2	2
STD C/AU 0.5	43	137	7.0	42	16	495

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
387032	16	61	.1	7	2	3
387033	18	63	.2	9	2	6
387034	52	92	.1	14	2	28
2+50S 2+00W	20	82	.3	11	2	5
2+50S 1+75W	28	97	.4	13	2	2
2+50S 1+50W	19	83	.2	11	2	1
2+50S 1+25W	24	91	.5	19	2	5
2+50S 0+75W	21	108	.4	32	2	7
2+50S 0+50W	24	101	.4	39	2	6
2+50S 0+25W	28	102	.3	49	2	18
2+50S 0+00W	30	89	.4	17	2	40
2+75S 0+00W	38	112	.5	29	2	10
3+00S 2+00W	14	74	.2	11	2	1
3+00S 1+75W	16	70	.4	7	3	9
3+00S 1+55W	19	73	.1	8	2	1
3+00S 1+25W	23	88	.2	11	2	2
3+00S 1+00W	19	100	.4	12	2	1
3+00S 0+75W	36	147	.7	24	2	14
3+00S 0+50W	31	105	.3	17	2	7
3+00S 0+25W	23	88	.1	19	2	9
3+00S 0+00W	25	110	.5	23	2	6
3+00S 0+25E	34	106	.5	37	2	18
3+00S 0+50E	32	105	.4	25	2	19
3+00S 0+55E	55	137	2.0	28	2	166
3+00S 0+65E	16	81	.2	13	2	10
3+00S 0+75E	19	76	.3	16	2	8
3+00S 0+85E	17	76	.3	17	3	16
3+00S 1+00E	22	81	.2	19	2	4
3+00S 1+25E	16	72	.2	23	2	2
3+00S 1+50E	14	74	.1	22	2	1
3+00S 1+75E	26	111	.4	32	2	42
3+00S 2+00E	28	123	.2	33	2	2
3+25S 0+00W	24	101	.3	23	2	3
3+50S 2+00W	20	92	.3	7	2	1
3+50S 1+75W	23	86	.3	14	2	1
STD C/AU-0.5	41	139	7.2	43	15	495

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
3+50S 1+50W	10	86	.2	12	2	2
3+50S 1+25W	24	96	.7	17	2	12
3+50S 1+00W	14	89	.3	11	2	10
3+50S 0+75W	13	90	.2	12	2	3
3+50S 0+30W	13	104	.2	18	2	2
3+50S 0+00W	11	93	.1	17	2	1
3+50S 0+25E	15	100	.2	20	2	11
3+50S 0+50E	20	108	.4	27	2	10
3+50S 0+75E	7	91	.2	19	2	65
3+50S 1+00E	33	116	.8	13	2	2
3+50S 1+10E	36	108	.9	13	2	14
3+50S 1+20E	35	124	2.3	14	2	30
3+50S 1+30E	31	117	1.7	20	2	24
3+50S 1+50E	9	74	.1	14	2	9
3+50S 1+75E	14	81	.2	15	2	27
3+50S 2+00E	17	78	.1	14	2	7
STD C/AU 0.5	39	136	7.1	40	16	510

ACME ANALYTICAL LABORATORIES LTD.
852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 29 1986

DATE REPORT MAILED: Oct. 7/86....

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-2 SOILS P3-ROCKS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: D. Toye DEAN TOYE. CERTIFIED B.C. ASSAYER.

ISLAND MINING PROJECT-CHARLESTON FILE# 86-2931

SAMPLE#	Ag PPM	Au* PPB
TR1 0+5	.6	25
TR1 0+10	.3	69
TR1 0+15	.7	64
TR1 0+20	.6	54
TR1 0+25	.6	82
TR1 0+30	1.0	270
TR1 0+35	.7	430
TR2 0+5	.1	9
TR2 0+10	.5	8
TR2 0+15	.2	5
TR2 0+20	.4	7
TR2 0+25	.4	28
TR2 0+30	.3	42
TR2 0+35	.5	49
TR2 0+40	.5	88
TR2 0+45	1.8	440
TR2 0+50	.9	66
TR3 0+5	.6	179
TR3 0+10	1.8	210
TR3 0+15	.6	41
TR3 0+20	.5	49
TR3 0+25	.5	92
TR3 0+30	.8	106
TR4 0+5	.3	100
TR4 0+10	1.0	149
TR4 0+15	.6	52
TR4 0+20	.6	121
TR4 0+25	.6	88
TR5 0+5	1.2	95
TR5 0+10	.5	14
TR5 0+15	.7	181
TR5 0+20	1.0	92
TR5 0+25	2.3	90
TR6 0+5	.4	3
TR6 0+10	.3	65
TR6 0+15	.2	29
STD C/AU-S	7.0	50

SAMPLE#	Ag PPM	Au* PPB
TR-6 0+20	.3	2
TR-6 0+25	.3	1
TR-6 0+30	.2	54
TR-6 0+35	.7	15
TR-7 0+5	.6	174
TR-7 0+10	.9	185
TR-7 0+15	.7	107
TR-7 0+20	.5	95
TR-7 0+25	.5	17
TR-9 0+5	.3	5
TR-9 0+10	.2	3
TR-9 0+15	.2	1
TR-9 0+20	.3	22
TR-9 0+25	.1	10
TR-9 0+30	.4	4
TR-9 0+35	.2	3
STD C/AU-S	7.1	48

APPENDIX B
ROCK DESCRIPTION AND RESULTS

AURUM GEOLOGICAL CONSULTANTS INC.

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH METERS	ANALYTICAL RESULTS Au ppb *(opt)	Ag ppm *(opt)	Pb ppm	Zn ppm	As ppm	Sb ppm
311281	Charl.vn above lower adit	chip sample across Qtz vn in shear zone	160/45E	0.8	.049*	.56*				
311282	Char.vn E.of lower adit	chip sample across qtz(gn-py-mal) vein	150/40E	2.0	.235*	1.92*				
311283	Char.vn E.of upper adit	chip sample across qtz-gn-cp-py vein	150/39E	0.6	.080*	0.23*				
311284	Char.vn E.of upper adit	chip sample across qtz-gn-cp-py vein	150/40NE	0.77	.88*	8.08*				
311285	Char.vn E.of upper adit	chip sample across qtz-gn-cp-py vein	143/40NE	0.46	.216*	0.58*				
311286	Char.vn E.end of cliff section	chip sample across qtz-gn-cp-py vein split by andesite dyke	143/40NE	0.5	0.269*	7.14*				
311287	Char.vn E.end of cliff section	chip sample across qtz-gn-cp-py vein above andesite dyke	143/40NE	1.8	0.11*	0.3*				
3T1001	Char.vn upper adit	qtz-gn-py-mal vein	140/40E	0.4	0.411*	2.1*				
3T1002	Char.vn approx 25m E. of upper adit	qtz-gn-py vein		0.5	0.144*	0.92*				
3T1003	Char.vn approx.150m E. of upper adit	qtz-gn-py vein	150/35E	0.8	0.135*	0.27*				
3T1004	Char.vn E.end of cliff section	qtz-gn-cp-mal vein		2.0	0.339*	30.72*				
3T1006	Char.vn in lower adit	qtz-gn-sp-py vein		0.5	6450 .198*	105.7 3.19*	5532	1756	147	15
3T1013	same as 311283	Char.vn qtz-gn-py-mal		0.8	2550 .094*	12.3 0.6*	435 -special prep	114	69	2
3T1014	below Char.vn at 311285	grab of rhy(Shakwak tr#8) 1-2% diss py		grab	105	0.2	21	85	4	2
3T1015	same as 3T1004	qtz-gn-cp-mal;panning of soil ind.barite in vn		2	4500 .39*	344.5 27.2*	17685 -special prep	126	74	55

AURUM GEOLOGICAL CONSULTANTS INC.

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH METERS	ANALYTICAL RESULTS Au ppb *(opt)	Ag ppm *(opt)	Pb ppm	Zn ppm	As ppm	Sb ppm
3T1005	Char.vn fault offset of vn section	3m wide shear zone 50cm wide; qtz-sp-py vn	135/40E	0.5	0.26*	1.98*				
3T2001	0+50S/0+35W	deeply oxidized bull qtz		grab	11800 .285*	78.9 2.47*	2504	104	192	8
3T2002	0+80S/0+10W	oxidized vuggy qtz with 3-5% gn		grab	400 .010*	17.3 0.48*	4673	277	93	10
3T2003	0+80S/0+10W	oxidized vuggy qtz with 3-5% gn		grab	5100 .144*	11.1 0.26*	1489	334	123	5
3T2004	1+65S/0+35W	oxidized bull qtz		grab	5000 .136*	84.5 2.49*	879	54	280	23
3T2005	2+00S/1+30W	bull qtz		grab	280	0.9	60	34	54	2
3T2008	same as 3T2002,003	special prep		grab	.029*	0.63*				
361001	0+00/BL	vuggy limonite stained qtz		grab	.119*	3.26*				
361002	0+40S/BL	altered qtz diorite with thin qtz vn		grab	.014*	.09*				
361010	3+50S/1+15E	rusty weathered vuggy qtz		grab	3400 .102*	36.5 1.09*	823	412	277	4
382034	2+50S/1+60E	qtz vein (Eric)		grab	5	0.3	7	9	4	2
3T2020	2+55S/0+30E	boulders;Char.extension oxidized vuggy qtz vn with 3-5% py		grab	.194*	2.15*				
3T2021	2+40S/0+50E	a.a.		grab	.146*	17.41*				
3T2027	approx.3+40S/0+50E	boulders;lim-Mn stained qtz 20 by 30cm		grab	.033*	1.35*				
3T2029	0+75S/0+30E	5cm wide qtz vn above inter.Char extension		grab	1.982*	2.99*				
3T2030	1+25S/BL	5 by 15cm boulder of qtz with 2-3% py ?ba?		grab	.054*	1.36*				

AURUM GEOLOGICAL CONSULTANTS INC.

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH METERS	ANALYTICAL RESULTS Au ppb *(opt)	Ag ppm *(opt)	Pb ppm	Zn ppm	As ppm	Sb ppm
3T1010	S.end of vn #2	slumped o/c,bull qtz with Mn & lim filled vugs		0.5	500	41.4 1.3*	1108	193	3206	7
3T1011	S.end of vn #2	brecciated Mn stained bull qtz vn		grab	465	27.1 0.8*	520	257	307	2
3T1012	S.end of vn #2	rusty weathered bull qtz		grab	14	4.2	61	7	78	2
3T1016	S.end of vn #2	bull qtz cut by chl microfractures		grab	53	5.7	143	21	51	3
3T2009	NE end vn.#2	qtz vn with 5% apy		grab	200	124.1 3.67*	775	22	31845	7
3T2010	vn.#2, 1/2 way	vuggy qtz vn		grab	19	2.8	479	43	110	2
322170	vn #2 E end				110	122.2 6.8*	3225	55	3258	8
322171	vn #2 E end				7	12.9	4156	721	42	3
3T2011	vn.#3 W end of property	vuggy rusty qtz vn.with tr.bismuth		grab	1700	5.7	68	15	93	2
3T1026	vn.#4 SW corner Island claims	5-15cm thick qtz-py-gn vein	150/45W	grab	1050 .034*	93.1				
3T2006	vn.#5 cirque E.of grid	bull qtz		grab	230	0.6	5	9	42	2
3T2031	trench #1	15 by 25cm boulder from dump in Tr#1;2-5% gn 1-2% py		grab	.05*	.12*				
3T2032	trench #1	boulder in permafrost 10 by10cm of qtz with 5-7% py,1-2% py		grab	.108*	1.04*				
3T2026	trench #2	a.a.,12.5 by 45cm		grab	.716*	1.01*				
3T2028	trench #7	5cm wide qtz vn in shear zone		grab	110	.4				
3T1007	cliff 1Km S.of Char. ridge	qtzite cut by bull qtz		grab	18	0.4	17	27	5	2

AURUM GEOLOGICAL CONSULTANTS INC.

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH METERS	ANALYTICAL RESULTS Au ppb *(opt)	Ag ppm *(opt)	Pb ppm	Zn ppm	As ppm	Sb ppm
3T1008	cirque E.of grid cirque	qtzite cut by bull qtz		grab	3	0.3	11	26	2	2
3T1009	cirque E.of grid cirque	qtz-carb vn(?) adjacent to rhy dyke		compo. grab 0.4	5	0.2	21	17	3	2
3T2007	approx 300m NE of 0+00/BL	qtz vn breccia		grab	9	0.3	10	25	55	2
361003	approx 300m E of BL	carb.altered andesite	120/85E	grab	.001*	.06*				
361004	N end of claims	pegmatite dyke		grab	.001*	.02*				
361005	2+00S/1+00E	bull qtz		grab	.001*	.03*				
361006	N end of claims	strongly altered rhy		grab	26	2.7	62	98	50	2
361007	N end of claims	bull qtz;subcrops in qtzite		grab	1	2.4	32	4	50	2
362008	N end of claims down slope	bull qtz		grab	22	0.6	2	3	103	2
361009	N end of claims	bull qtz		grab	29	0.2	23	10	23	2
371177		silicified zone in meta-volc,schistose; Tr.py		1.5	.001*	.03*				
371178		qtzite		1.5	.001*	.01*				
321172	S.end of claims				1	0.2	2	38	5	2
321174	S.end of claims				1	0.2	14	39	6	2

APPENDIX C
ANALYTICAL METHODS

The geochemical analyses were carried out by ACME ANALYTICAL LABORATORIES of 852 East Hasting St., Vanvouver, B.C.

Soil samples are dried and seived to -80 mesh and a split is analysed. Rock samples are pulverized to -100 mesh and a split is analysed.

Silver, lead, zinc, arsenic and antimony are analysed by ICP (Inductively Coupled Argon Plasma) methods. A 5 gram sample is digested in 3ml Aqua Regia and diluted to 10ml with demineralized water prior to analysis.

Gold analyses are by Atomic Absorption of an MIBK extract using a background correction. The MIBK extract involves igniting a 10 gram sample for four hours at 600 C followed by digesting the sample in 30ml of hot dilute aqua regia; 75mls of clear solution obtained is extracted with 5mls of Methyl Isobutal Ketone (MIBK).

Gold and silver assays are by regular fire assay techniques.

APPENDIX D
STATEMENT OF QUALIFICATIONS

I, THOMAS GARAGAN, hereby certify that:

1. I am a geologist with Aurum Geological Consultants Inc. of 1614 675 West Hastings Street, Vancouver, B.C. and that I caused to be performed the work described in this report.

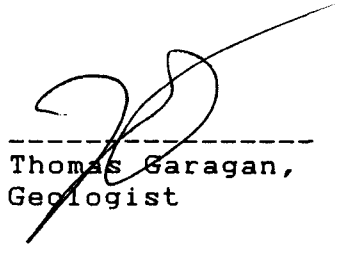
2. I obtained a Bachelor of Science degree with Honours in Geology from the University of Ottawa, Ontario, in 1980.

3. I am a fellow of the Geological Association of Canada (F3819) and a member of the Mineralogical Association of Canada.

4. I have been engaged in mineral exploration and geological survey mapping on a full and part time basis for 9 years, of which 6 have been spent on mineral exploration programs in the Yukon Territory.

5. I have no interest in the claims or securities of Island Mining and Exploration Co. Ltd., nor do I expect to obtain any.

DATED at Calgary, Alta., this 22 day of December 1986.



Thomas Garagan,
Geologist

APPENDIX E

STATEMENT OF COSTS SURFACE WORK

HO 1-20, ISLAND 1-12,13 Fr claims

Labour Costs:

T.Garagan, 6 days field work,4 days data complilation and report writing: 10 days @ $200/Day	$2000.00
P.Garagan, 4 days field work @ $125/Day	$ 500.00
G.Nicholson, 2 days field work @ $80/Day	$ 160.00
R.Zuran, 1 day field work @ $75/Day	$ 75.00
M.Van Wermeskerken, 3 days field work @ $75/Day	$ 225.00
E.Bergvinson, 1 day field work @ $50/Day	$ 50.00
Total Labour Costs	$3010.00

Analytical Costs:
Analyses by ACME Analytical of Vancouver,B.C.

Soil Samples: 179 samples analysed for Au,Ag,As,Sb,Pb and Zn by ICP analyses: 179 samples @ $4.75/sample	$ 850.25
Rock Samples: 31 samples analysed for Au,Ag,As,Sb,Pb and Zn by ICP analyses: 31 samples @ $7.00/sample	$ 217.00
: 1 sample analysed for Au and Ag by FA/AA techniques 1 sample @ $10.50/sample	$ 10.50
: 33 samples assayed for Au and Ag by fire assay techniques 33 samples @ $14.25/sample	$ 470.25
: 1 rock sample assayed for Au by fire assay techniques 1 sample @ $11.25/sample	$ 11.25
: 4 rock samples assayed for Ag fire assay techniques 4 samples @ $9.75/sample	$ 39.00
Total Analytical Costs	$1598.25

Helicopter Costs:

August 8,9,10,11,23 and September 2,1986: Hughes 500D on casual charter from Frontier Helicopters,Wheaton River Airstrip.

3.9 hours @ $440/hour	$1716.00	
Fuel: 3.9 hours at 120 liters JP-4/hour @ $0.75/liter	$ 351.00	
Total Helicopter Costs		$2067.00

Camp Costs:

Food,Vechicles,Fuel,Expediting etc.
Estimated at $15.00/man day in the field

17 mandays @ $15.00/man day		$ 255.00

Report Costs:

Aurum invoice 86-9-03(December 3,1986) to Island Mining and Exploration Co.Ltd.

Drafting:	$ 551.25	
Typing:	$ 150.00	
Photocopying,Binding,Map Copying: 2 reports @ $13.60/report	$ 27.20	
Total Report Costs for Assessment		$ 728.45
Total Costs of Surface work for Assessment on the HO 1-20 and ISLAND 1-12,13Fr claims		$7658.70

APPENDIX F

STATEMENT OF COSTS CAT TRENCHING

HO 2 claims

Labour Costs:
Supervision,Mapping,Sampling
T.Garagan, 3 days field work,1 day data complilation and report writing: 4 days @ $200/Day $ 800.00

J.O'Rourke, 1 day field work @ $100/Day $ 100.00

Total Labour Costs $ 900.00

Analytical Costs:
Analyses by ACME Analytical of Vancouver,B.C.

Soil Samples: 52 samples analysed for Au and Ag by FA/AA Techniques:
52 samples @ $9.25/sample $ 481.00

Rock Samples: 1 sample analysed for Au and Ag by FA/AA techniques
1 sample @ $10.50/sample $ 10.50

: 3 samples assayed for Au and Ag by fire assay techniques
3 samples @ $14.25/sample $ 42.75

Total Analytical Costs $ 534.25

Helicopter Costs:
September 21,22 and 26,1986: Hughes 500D on casual charter from Frontier Helicopters,Wheaton River Airstrip.
3.6 hours @ $440/hour $1584.00

Fuel: 3.6 hours at 120 liters JP-4/hour @ $0.75/liter $ 324.00

Total Helicopter Costs $1908.00

Bulldozer Costs:

September 21,22 and 26,1986: D7 Caterpellar on contract from E.Caron Diamond Drilling,Whitehorse

24 hours @ $90.00/hour	$2160.00	
Fuel: 24 hours @ 6 gallons diesal/hour @ $3.00/gallon	$ 432.00	
Total Bulldozer Costs		$2592.00

Camp Costs:

Food,Vechicles,Fuel,Expediting etc. Estimated at $15.00/man day in the field 7 man days (4 geologists,3 opoerators) @ $15.00/man day		$ 105.00
Total Costs of Cat Trenching for assessment purposes on the HO-2 claim		$6039.25

APPENDIX G

PERSONNEL

Aurum Personnel:

T.Garagan, BSc.,F.G.A.C., Director, Geologist: Project Supervision, Geological mapping, Geochemical Sampling, Prospecting, Data Compilation, Report Writing.

P.Garagan, BSc., Geologist: Geological mapping, Geochemical Sampling, Prospecting.

Island Personnel:

G.Nicholson: Geochemical Sampling, Prospecting.

R.Zuran: Geological mapping, Geochemical Sampling, Prospecting.

M.Van Wermeskerken: Geochemical Sampling, Prospecting.

E.Bergvinson: Geochemical Sampling, Prospecting.

J.O'Rourke: Geochemical Sampling.

091897

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
YUKON QUARTZ MINING ACT
FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

RECEIVED
JAN 16 1987
MINING RECORDERS OFFICE WHITEHORSE, Y.T.

(This form required in duplicate with sketch showing location of work.)

I (Name) Tom Garagan Occupation Geologist

(Postal Address) #4-707 3ave,N.W. Calgary, Alberta T2N 0J3

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

HO 2 YA82048

situated at the head of Berney Ck.& Watson R. Claim Sheet No. 105-D-3

in the Whitehorse Mining District, to the value of at least $6,039.25

dollars, since the 18th day of March 19 86.

to represent the following mineral claims under the authority of Grouping Certificate No. 9730

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

renew HO 2,19,20 claims inclusive(YA82048,82995,82996) from March 4,1992 to March,1994.
(3 claims for 2 years)

renew ISLAND 1-12,13Fr. claims inclusive(YA94330-94342 inclusive) from March 18,1989 to March 18,1991.
(13 claims for 2 years)

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Cat trenching (9 trenches,approx.1380 cu.m.in frozen overburden) from September 21 to 26,1986. described in accompanied report.

Sworn before me at CALGARY, ALBERTA

this 16 day of December 19 86.

Notary Public

R.G.P. BROWN
BARRISTER & SOLICITOR

Owner or Authorized Agent

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

I (Name) Tom Garagan — Occupation Geologist	OFFICE DATE STAMP
(Postal Address) #4-707 3ave,N.W. Calgary, Alberta T2N 0J3	

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

HO 2: YA82048

situated at the head of Berney Ck.& Watson R. Claim Sheet No. 105-D-3

in the Whitehorse Mining District, to the value of at least $6,039.25

dollars, since the 18th day of March 19 86.

to represent the following mineral claims under the authority of Grouping Certificate No. 9712

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

renew HO 1,3-8,14,16 claims inclusive(YA82047,82049-82054,82990,82992)
from March 4,1992 to March 4,1994.
(9 claims for 2 years)

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Cat trenching (9 trenches,approx.1380cu.m. in frozen overburden)
from September 21 to 26,1986. Described in accompanied report.

Sworn before me at Calgary, Alberta

this 16 day of December 1986.

Notary Public

R.G.P. BROWN
BARRISTER & SOLICITOR

Owner or Authorized Agent

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

RECEIVED JAN 16 1987 MINING RECORDER'S OFFICE WHITEHORSE, N.T.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) Tom Garagan	Occupation Geologist
(Postal Address) #4-707 3ave,N.W. Calgary, Alberta T2N 0J3	

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

HO 2: YA82048

situated at the head of Berney Ck. & Watson R Claim Sheet No. 105-D-3

in the Whitehorse Mining District, to the value of at least $6,039.25

dollars, since the 18th day of March 19 86.

to represent the following mineral claims under the authority of Grouping Certificate No. 9760

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

renew HO 9-13,15,17,18 claims inclusive(YA82985-82989,82991,82993,82994)
from March 4,1992 to March 4,1993.
(8 claims for 1 year)

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Cat trenching (9 trenches,approx.1380cu.m. in frozen overburden)
from September 21 to 26,1986. Described in accompanied report.

Sworn before me at CALGARY, ALBERTA

this 16 day of DECEMBER 19 86.

Notary Public

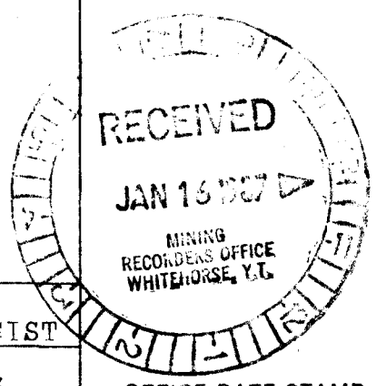
R.G.P. BROWN
BARRISTER & SOLICITOR

Owner or Authorized Agent

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK



OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) TOM CARAGAN	Occupation GEOLOGIST
(Postal Address) #4-707 3ave, N.W. Calgary, Alberta T2N 0J3	

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

HO 1-20 claims inclusive: YA82047-82054,YA82985-82996 inclusive

ISLAND 1-12,13Fr. claims inclusive: YA94330-94342 inclusive

situated at the head of Berney Ck.& Watson R. Claim Sheet No. 105-D-3,4

in the Whitehorse Mining District, to the value of at least $7,658.70

dollars, since the 18th day of March 19 86,

to represent the following mineral claims under the authority of Grouping Certificate No. ____ ____

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

renew HO 1-8,9-20 claims inclusive: YA82047-82054,YA82985-82996 inclusive
from March 4,1990 to March 4,1992 Shakwak Exploration Company Limited
(20 claims for 2 years)

renew ISLAND 1-12,13Fr. claims inclusive: YA94330-94342 inclusive
from March 18,1987 to March 18,1989
(13 claims for 2 years)

Island Mining and Exploration co Ltd.

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Geological mapping,prospecting and geochemical sampling:
August 8-September 2nd,1986,described in accompanied report

Sworn before me at CALGARY, ALBERTA

this 16 day of DECEMBER 19 86.

Notary Public

H.G.P. BROWN
BARRISTER & SOLICITOR

Owner or Authorized Agent