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GEOCHEMICAL REPORT
ON THE
MCINTOSH CLAIM GROUP
NORTHERN VANCOUVER ISLAND
BRITISH COLUMBIA, CANADA

NTS 92L/12

Latitude / 50°40' N
Longitude / 127°50' W

For

Moraga Resources Ltd.

1030 - 609 Granville Street
Vancouver, British Columbia
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By

Rod W. Husband, B.Sc.

October 15, 1989

19388

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SUMMARY

Daiwan Engineering Ltd. conducted an exploration program on the McIntosh Claim Group, near Port Hardy, B.C. between November 1, 1988 and February 28, 1989. This program consisted of the reassay of 940 soil samples from a 1968 survey and follow-up mapping and soil sampling in areas of interest.

Between November 1, 1988 and December 22, 1988, Daiwan Engineering Ltd. conducted a regional mapping and sampling program over the entire Expo claim group. The Red Dog, McIntosh, and Hushamu claim groups were the target areas, a total of 125 rock samples were collected and assayed. A total of $62,918.77 was spent and was divided between the three claim groups.

Two areas of interest were defined by the reassaying of soil samples, the first in the area of South McIntosh and the second in the area of McIntosh Mountain. A total of 74 rocks and 328 soil samples were collected between January 15 and February 28, 1989 from the two areas on the McIntosh Claim Group.

No anomalous results were obtained in the area of South McIntosh. Results from McIntosh Mountain returned gold values up to 1,645 ppb in the rocks and 490 ppb in the soil. Further work is needed to outline the extent of the gold mineralization on McIntosh Mountain.

A total of $57,232.66 was spent on the McIntosh Claim Group between November 1, 1988 and February 28, 1989.

INTRODUCTION

At the request of Mr. Maurice Young, President of Moraga Resources Ltd., Daiwan Engineering conducted an exploration program on the McIntosh group of claims. The program consisted of reconnaissance geological mapping and sampling of outcrop and geochemical soil sampling in areas outlined by a previous survey.

Initially, 940 soil pulps from a survey conducted in 1968 were reassayed for gold, arsenic and 4 additional elements. Late in 1988, a regional mapping program resulted in the collection of 125 rock samples. From these two programs, two areas for follow-up work were established.

Two grids were established and soil sampled over these two target areas. A total of 328 soil samples were collected. Geological mapping and sampling resulted in 74 rock samples being collected and analyzed for gold.

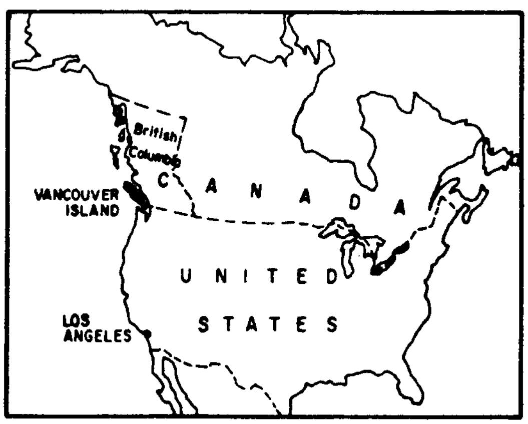
This report is a compilation of work done on the property during exploration and from previous reports on the area.

LOCATION AND ACCESS

The Expo property is located on northern Vancouver Island, approximately 360 km (225 miles) northwest of Vancouver, British Columbia, Canada (Figure 1). Locally this large claim group covers a 20 km (13 mile) stretch of ground immediately north, and parallel to the west end of Holberg Inlet on N.T.S. topographic map 92L/12. The McIntosh claim group consist of 100 contiguous post claims in the centre of the Expo property (see Figure 2). Most areas of the property can be reached by well maintained logging roads and forest tracks. The main access to the claim block is by forest road "Wanokana Main" which commences on the outskirts of Coal Harbour.

Regular Boeing 737 or Dash 7 air service is provided by both Canadian Airlines and Time Air from Vancouver to Port Hardy, each on a twice daily schedule. Alternately, there is good highway access, with travel from Vancouver taking 7 hours.

Port Hardy is the local commercial centre, but there are forestry and fishing centres at Coal Harbour and Holberg.



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EXPO PROJECT

NANAIMO MINING DIVISION, B.C.

LOCATION MAP

DAIWAN ENGINEERING LTD.

SCALE	DATE	FIG.
1:8,000,000	SEPT., 1989	1

TOPOGRAPHY AND VEGETATION

The property is characterized by many low, northwest to westerly trending hills and ridges bounded by narrow deeply incised valleys and steep slopes. Elevations range from sea level to over 600 metres (2,000 ft). Within the claim block ridge tops are commonly about 300 metres (1,000 ft) above valley bottom. The property is within N.T.S. topographic map 92L/12.

The claims are located within an active logging area, consequently forest cover varies from mature stands of fir, hemlock, spruce and cedar to dense second growth or to open clear-cut areas of recent logging. Some of the ridge tops are fairly open with only stunted evergreens. Low areas, especially along creeks have thick brush and berry bushes.

Rock exposure is well defined in the areas of high relief, and on the higher ridges. However, thick humus development on the forested slopes and scattered residual glacial gravels in the valley bottoms restrict geological mapping in these areas.

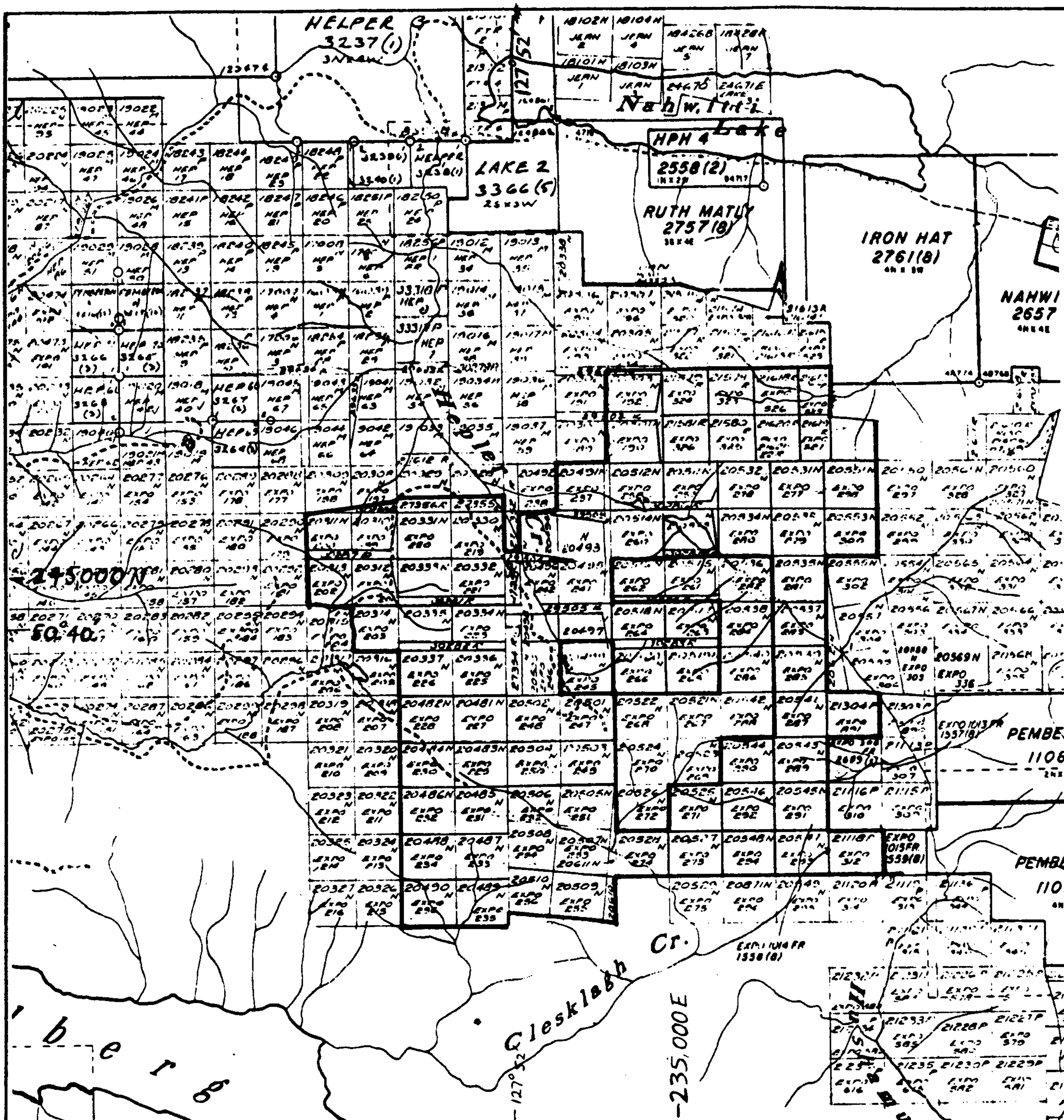
PROPERTY DESCRIPTION

The McIntosh Group consists of 100 contiguous 2 post claims in the Nanaimo Mining Division. A complete list of the claims can be found in Appendix 1.

HISTORY

Northern Vancouver Island has been intermittently explored since the early 1800s. Between 1849 and 1920 several attempts were made at mining coal in the Port Hardy area. These operations failed due to the poor quality of coal. In the early 1900s, minor coal was mined at Coal Harbour, located on the north shore of Holberg Inlet.

Copper was discovered in 1911 at Benson Lake, 25 miles southeast of Port Hardy. This property, now known as Coast Copper Mine, was acquired by Cominco in 1916. They carried out considerable underground development work, but closed down in 1931, remaining idle until 1960. It was then actively mined between 1962-1972 producing copper and iron concentrates which were shipped to Japan.



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MORAGA RESOURCES LTD.		
EXPO PROJECT NANAIMO MINING DIVISION, B.C.		
MCINTOSH GROUP **CLAIM MAP**		
DAIWAN ENGINEERING LTD.		
SCALE 1 : 50,000	DATE SEPT., 1989	FIG. 2

Magnetite occurrences were located in the Benson Lake area in 1897, but were considered of interest only for their copper content until the early 1950s. They were explored for their iron content between 1950-56, then mined until 1967 when the operation ceased. Iron concentrates were also shipped to Japan.

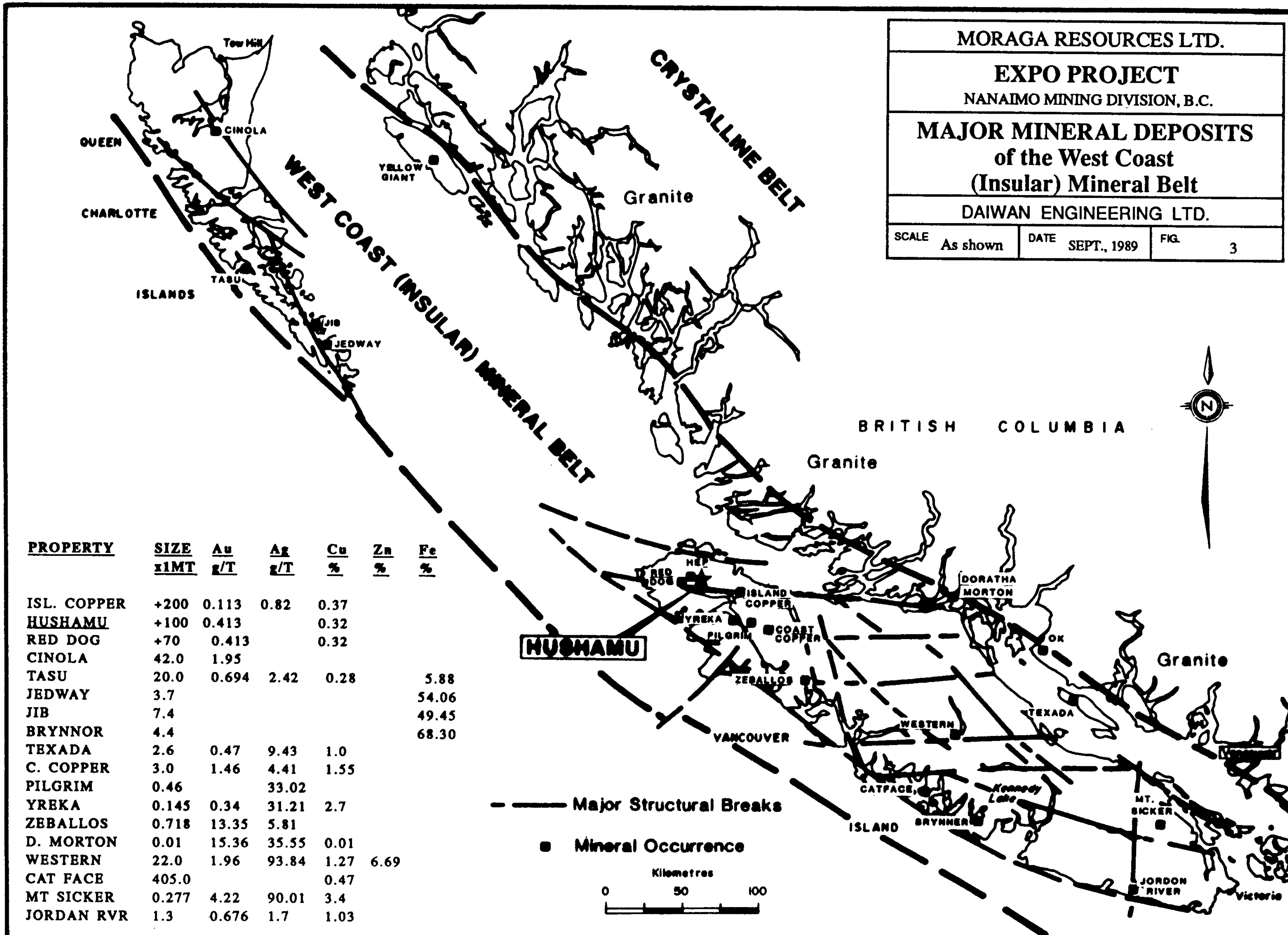
In 1963, the B.C. Department of Mines published the results of a recently completed aeromagnetic survey covering the northern end of Vancouver Island.[2] Since magnetite deposits were of interest at this time, considerable exploration activity was generated in the area examining all magnetic anomalies of interest.

One magnetic anomaly of fairly large areal extent was recorded on the eastern end of Rupert Inlet. Diligent prospecting in this area located a number of poorly exposed copper occurrences. A large number of claims were located in 1966 and subsequently the property was acquired by Utah Construction and Mining Company, now BHP-Utah Mines Ltd. Over the years, they added to the claim block and conducted extensive geological-geochemical-geophysical surveys and diamond drilling throughout the claim block. This work resulted in locating the large copper-molybdenum deposit which was developed into Island Copper Mine (Figure 3). The mine commenced production in October 1971. Production to 1987 has been in excess of 200 million tonnes milled, for concentrate sales of 753,000 tonnes of copper, 23.1 million grams gold, 168 million grams silver, and 15.3 tonnes molybdenum[14].

With the discovery of significant copper mineralization on the Utah property, a great deal of interest was generated in the area by individuals and companies searching for copper. Many copper occurrences were located but none were found to be economic.

During the height of the exploration activity, Utah Mines Ltd. controlled most of the ground extending from the east end of Rupert Inlet to the west end of Holberg Inlet. Their properties included the large block of claims covering the Island Copper deposit, as well as the favourable geology on trend to the northwest (most of the present Expo group). After exploring the area extensively to 1975, Utah dropped some of the claims but retained the Expo group. Exploration on these claims had located a large area of low grade copper-molybdenum mineralization (the Hushamu zone) estimated to contain 58,420,000 mineable tonnes grading 0.32% Cu, 0.008% Mo and 413 ppb gold with a stripping ratio of 2.21:1. The drill indicated reserve for the deposit is over 100 million tonnes at the same grade, but higher stripping ratio. [4]

A number of other alteration zones, similar to that at Island Copper Mine and the Hushamu zone, were investigated. While some were mineralized, they were not significant enough at the time to warrant further development.



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MAJOR MINERAL DEPOSITS of the West Coast (Insular) Mineral Belt

DAIWAN ENGINEERING LTD.

SCALE As shown | DATE SEPT., 1989 | FIG. 3

PROPERTY	SIZE x1MT	Au g/T	Ag g/T	Cu %	Zn %	Fe %
ISL. COPPER	+200	0.113	0.82	0.37		
HUSHAMU	+100	0.413		0.32		
RED DOG	+70	0.413		0.32		
CINOLA	42.0	1.95				
TASU	20.0	0.694	2.42	0.28		5.88
JEDWAY	3.7					54.06
JIB	7.4					49.45
BRYNNOR	4.4					68.30
TEXADA	2.6	0.47	9.43	1.0		
C. COPPER	3.0	1.46	4.41	1.55		
PILGRIM	0.46		33.02			
YREKA	0.145	0.34	31.21	2.7		
ZEBALLOS	0.718	13.35	5.81			
D. MORTON	0.01	15.36	35.55	0.01		
WESTERN	22.0	1.96	93.84	1.27	6.69	
CAT FACE	405.0			0.47		
MT SICKER	0.277	4.22	90.01	3.4		
JORDAN RVR	1.3	0.676	1.7	1.03		

The Hushamu deposit, and these other alteration zones, are the targets for Moraga's gold and copper exploration. The urgency for developing a further copper deposit in the area is prompted by the expected closure of the Island Copper Mine in 1996 due to the exhaustion of the pit reserves.

Moraga has completed two preliminary phases of exploration since obtaining the property option. The first groundwork was a Downhole Pulse Electromagnetic Survey of DDH EC-158 on Pemberton Hills. This survey indicated a sheet-like sulphide horizon with a significantly more responsive sulphide zone to the north-northwest of the present drillhole. This is awaiting further fieldwork.

The second programme commenced in late November of 1988, on the completion of the Company's public financing, and has included regional mapping with road cut sampling, computer modelling of the 1963 airborne geophysical data, and a 762 metre (2,500 feet) drill programme. In addition archived soil sample rejects were recovered from storage and analyzed for gold arsenic, selenium, tellurium, bismuth, and antimony mineralization. These samples had previously been analyzed for copper, lead and zinc.

REGIONAL GEOLOGY

Vancouver Island, north of Holberg and Rupert Inlets, is underlain by rocks of the Vancouver Group. These rocks range in age from Upper Triassic to Lower Jurassic. They are intruded by rocks of Jurassic and Tertiary age and disconformably overlain by Cretaceous sedimentary rocks. The structural setting of Vancouver Island is shown in Figure 3. Figure 4 shows the geological mapping of the northern part of the Island.

Faulting is prevalent in the area. Large-scale block faults with hundreds to thousands of metres of displacement are offset by younger strike-slip faults with displacements up to 750 metres (2,500 feet).

The Vancouver Group is described as follows:[6]

(a) Basal Sediment - Sill Unit: Middle and Upper Triassic Age

The basal sediment-sill unit consists of laminated to graded-bedded black shales and siltstones, silicified and invaded by diabase sills. The entire unit is estimated as 750-900 metres (2,500-3,000 feet) with the sedimentary portion being about 180 metres (600 feet) thick.

(b) Karmutsen Formation: Upper Triassic Age

Karmutsen Formation consists of 3,000-6,000 metres (10-20,000 feet) of volcanic flows, pyroclastics and minor sediments. It includes three distinct units: a lower pillow lava unit, a middle pillow breccia unit, and an upper lava flow unit. The latter consists of predominantly porphyritic and amygdaloidal basalt flows, individual flows of which range from 1-30 metres (to 100 feet) thick.

Two thin bands of limestone occur near the top of the Karmutsen Formation. The distribution of limestone outcrops is erratic and suggests a series of lenses at the same general stratigraphic horizon rather than one continuous bed.

The lower contact of the formation has not been observed on the northern part of Vancouver Island. The upper contact with limestone of the Quatsino Formation generally is sharp and easily recognized, although limestones and basalt locally are interbedded over a narrow stratigraphic interval at this contact.

Low-grade metamorphism of the Karmutsen Formation rocks has resulted in pervasive chloritization and amygdules filled with epidote, carbonate, zeolite, prehnite, chlorite, and quartz.

Basaltic rocks along contacts with intrusive stocks are in many places converted to dark-coloured hornblende hornfels. Skarn zones occur sporadically along these contacts, both in the inter-lava limestones and in the basalts.

(c) Quatsino Formation: Upper Triassic Age

The Quatsino Formation ranges from 60-1,000 metres (200-3,500 feet) in thickness and consists almost entirely of limestone with a few thin andesite or basalt flows. It has conformable contacts with both the overlying Parson's Bay sediments and the underlying Karmutsen volcanics. The upper contact with the Parson's Bay Formation is gradational with limestone grading upward into carbonaceous argillites.

Within the contact metamorphic/metasomatic aureoles adjacent to intrusive stocks, skarn development and silicification of limestone, accompanied by chalcopyrite-magnetite or galena, sphalerite and silver mineralization has been noted.

(d) Parson's Bay Formation: Upper Triassic Age

The Parson's Bay Formation consists of between 60-360 metres (200-1,200 feet) of argillite, minor limestone, agglomeratic and tuffaceous limestone, tuff, quartzite and minor conglomerate. At both its base and top, the unit exhibits gradational contacts with the Quatsino and Harbledown Formations.

On a regional scale, the rocks are unmetamorphosed. Locally, adjacent to intrusive contacts, pyrite-magnetite replacement bands up to one-half inch thick in banded tuffs have been observed.

(e) Harbledown Formation: Lower Jurassic Age

The Harbledown Formation consists of 485 metres (1,600 feet), a non-volcanic argillite-greywacke sequence separating the Parson's Bay from the Bonanza Formation.

(f) Bonanza Formation: Lower Jurassic Age

The Bonanza Formation is approximately 1,500 metres (8,500 feet) thick. The lower portion consists of bedded and massive tuffs, formational breccias and rare amygdaloidal and porphyritic flows, in the compositional range andesite to basalt. Porphyritic dykes and sills intrude the lower part of the unit. In the upper part of the Bonanza, rhyodacite flows and breccias become more numerous and are interbedded with andesite and basalt flows, tuffs and tuff breccias.

Regional metamorphism within the Bonanza Volcanics is very low grade, possibly zeolite facies. Plagioclase commonly is albitized and saussuritized. Chlorite, epidote and laumontite occur within the matrix of volcanic breccias, in veinlets, and in amygdules. Coarse intraformational breccias locally are hematized.

Biotite and amphibolite hornfelses occur adjacent to stocks which intrude the Bonanza Volcanics.

"Pyrobitumen", a black hydrocarbon erratically distributed within the Bonanza rocks, generally occurs as fracture fillings or in the centre of zeolite-carbonate veins. Its distribution is not related to the position of the intrusive stocks.

Cretaceous Sediments

The Vancouver Group is unconformably overlain by non-marine Cretaceous sediments of the Longarm Formation which are estimated to be about 300 metres (1,000 feet) thick in the Port Hardy area. These sediments, consisting of conglomerate, sandstone, greywacke, and siltstone and some carbonaceous and impure coal seams, occupy local basins. Early coal mining in the district was from several of these basins.

Intrusive Rocks

The Vancouver Group rocks are intruded by a number of Jurassic-aged stocks and batholiths. In the Holberg Inlet area a belt of northwest-trending stocks extend from the east end of Rupert Inlet to the mouth of Stranby River on the north coast of Vancouver Island[15].

Quartz-feldspar porphyry dikes and irregular bodies occur along the south edge of the belt of stocks. Dykes are characterized by coarse, subhedral quartz and plagioclase phenocrysts set in a pink, very fine grained, quartz and feldspar matrix. They are commonly extensively altered and pyritized. At Island Copper Mine, these porphyries are enveloped by altered, brecciated, mineralized Bonanza wallrocks. The porphyries, too, are cut by siliceous veins, pyritized, extensively altered, and are mineralized where they have been brecciated. The quartz-feldspar porphyries are thought to be differentiates of middle Jurassic, felsic, intrusive rocks.

Other intrusive rocks of lesser significance include felsic dykes and sills around the margins of some intrusive stocks; dykes of andesitic composition, which cut the Karmutsen, Quatsino and Parson's Bay Formation, and represent feeders for Bonanza volcanism; and Tertiary basalt-dacite dykes intruding Cretaceous sediments.

Structure

The structure of the rocks north of Holberg and Rupert Inlets is that of shallow synclinal folding along a northwesterly fold axis. The steeper southwesterly limbs of the folds have apparently been truncated by faults roughly parallel to the fold axis. Failure of limestone during folding may have influenced the location of some of the faulting as indicated by their proximity of the Dawson and Stranby River Faults to the Quatsino horizon. Transverse faulting is pronounced and manifested by numerous north and northeasterly trending faults and topographic lineaments.

The northern part of Vancouver Island lies in a block faulted structural setting with post Lower Cretaceous northwesterly trending faults apparently being the major system. This system causes both repetition and loss of parts of the stratigraphic section, with aggregate movement in a vertical sense in the order of tens to hundreds of metres. The most significant of these fault systems trends west to northwest following Rupert and Holberg Inlets. Near the west end of the Holberg Inlet it splits with the main branch following the Holberg Inlet, the other branch passing through the west side of the Stranby Valley. Another northwesterly to westerly system passes through William Lake and still another smaller system passes through Nahwitti Lake.[6]

Northeasterly trending faults comprise a subordinate fault system. In some cases, apparent lateral displacement, in the order of a several hundred metres, can be measured on certain horizons. Movement, however, could be entirely vertical with the apparent offset resulting from the regional dip of the beds.

Recent computer modelling of the airborne magnetometer data has provided a very clear understanding of the relationship of secondary conjugate sets of northeast and north westerly faults related to the major west-northwest trending breaks.[7] These conjugate fault sets appear to relate directly to the significant mineralization at the Island Copper, Hushamu, Hep and Red Dog copper/gold deposits.

Generally, regional dip of the bedding is gentle to moderate southwesterly. Locally, in the area west of Holberg, dips are much steeper, but these are in close proximity to major faults. There is little folding or flexuring of bedding visible, except along loci of major faults where it is particularly conspicuous in thinly bedded sediments of Lower Bonanza. Bedding is generally inconspicuous in massive beds of Karmutsen, Quatsino and Bonanza rocks, particularly inland where outcrops are widely scattered.

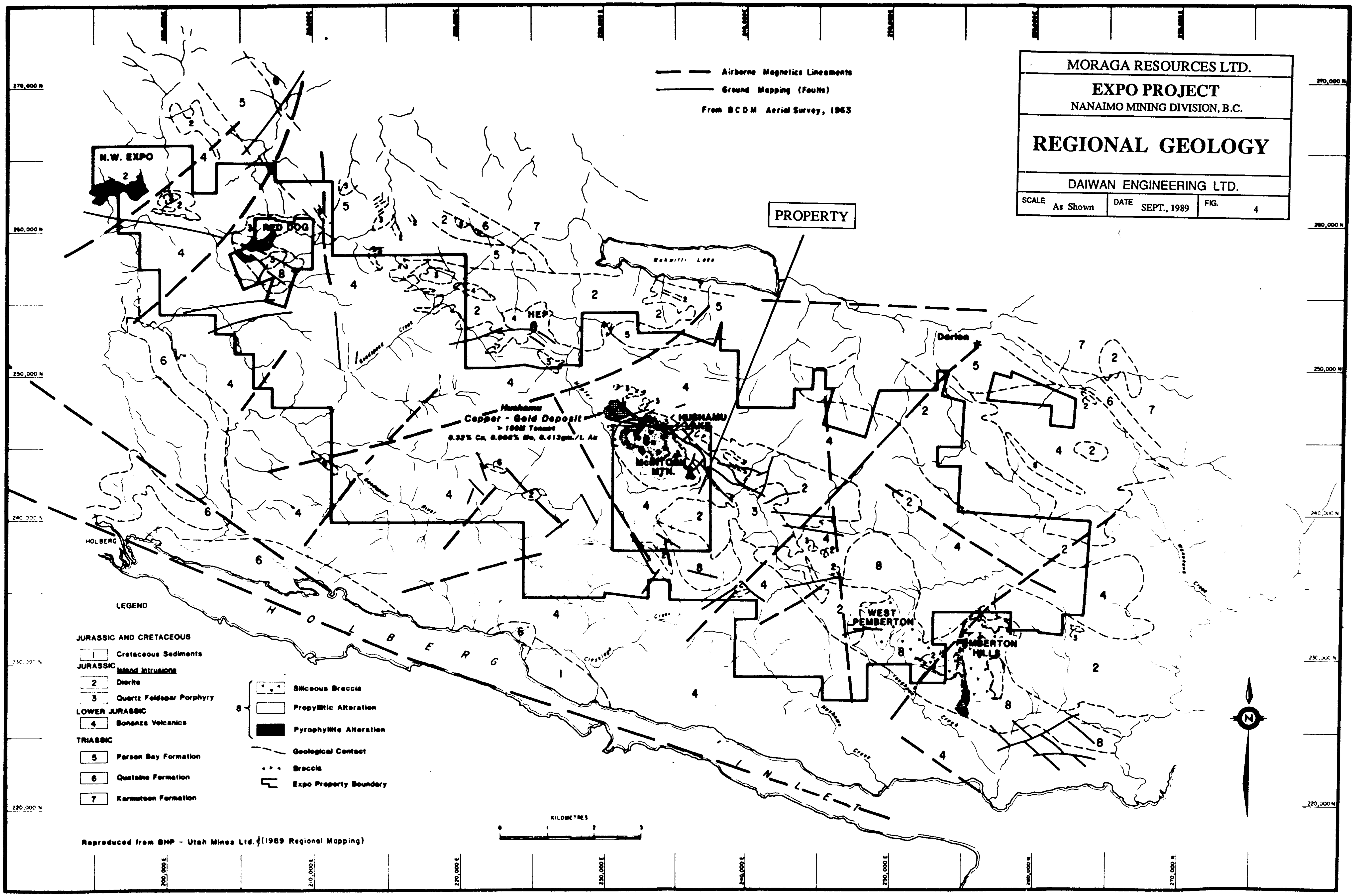
REGIONAL MINERALIZATION

A number of types of mineral occurrences are known on Northern Vancouver Island. These include:

1. Skarn deposits: copper-iron and lead-zinc skarns

2. Copper in basic volcanic rocks (Karmutsen): in amygdules, fractures, small shears and quartz-carbonate veins, with no apparent relationship to intrusive activity

3. Veins: with gold and/or base metal sulphides, related to intrusive rocks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EXPO PROJECT
NANAIMO MINING DIVISION, B.C.
REGIONAL GEOLOGY
DAIWAN ENGINEERING LTD.
SCALE As Shown
DATE SEPT., 1989
FIG. 4
PROPERTY
Airborne Magnetics Lineaments
Ground Mapping (Faults)
From BCDM Aerial Survey, 1963
N.W. EXPO
RED DOG
HEP
Nahwitti Lake
Hushamu Copper - Gold Deposit
> 100M Tonnes
HUSHAMU LAKE
McINTOSH MTN.
Darlon
WEST PEMBERTON
PEMBERTON HILLS
HOLBERG
H O L B E R G I N L E T
LEGEND
JURASSIC AND CRETACEOUS
1 Cretaceous Sediments
JURASSIC Island Intrusions
2 Diorite
3 Quartz Feldspar Porphyry
LOWER JURASSIC
4 Bonanza Volcanics
TRIASSIC
5 Parson Bay Formation
6 Quatsino Formation
7 Karmutsen Formation
8 Siliceous Breccia
Propylitic Alteration
Pyrophyllite Alteration
Geological Contact
Breccia
Expo Property Boundary
KILOMETRES
Reproduced from BHP - Utah Mines Ltd. (1989 Regional Mapping)
270,000 N
260,000 N
250,000 N
240,000 N
230,000 N
220,000 N
200,000 E
210,000 E
220,000 E
230,000 E
240,000 E
250,000 E
260,000 E
270,000 E

4. Porphyry copper deposits: largely in the country rock surrounding or enveloping granitic rocks and their porphyritic phases.

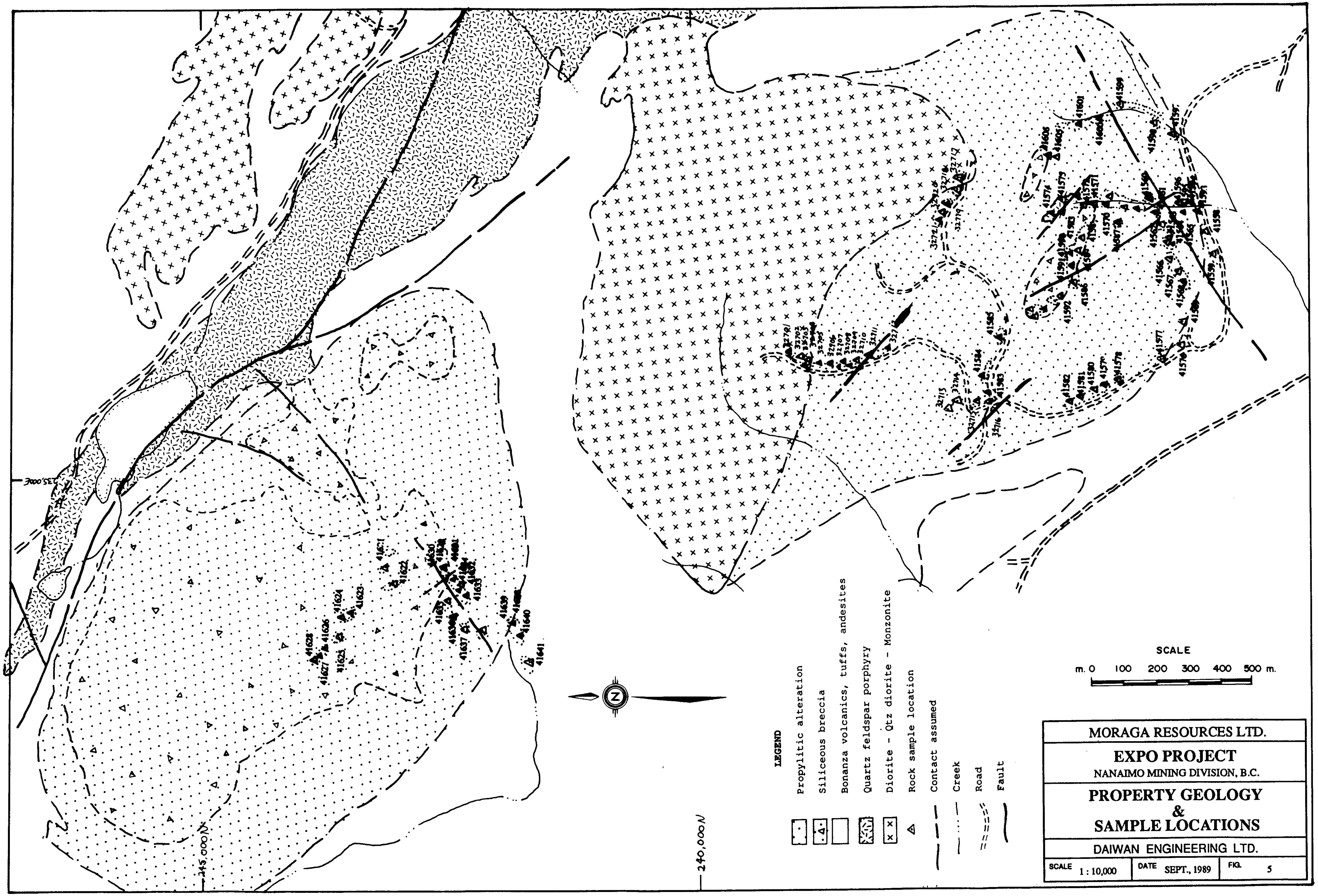
Utah Mines Ltd., in their many years of exploration in the Holberg-Rupert Inlets area, focused their attention on the search for copper porphyry deposits. Their exploration resulted in locating and developing the Island Copper Mine. In addition, they located other areas of porphyry mineralization, as well as two areas anomalous in gold and one area with massive sulphide mineralization within the Expo group claim area. Moraga's efforts in the past 6 months have been directed at verifying the extent of the gold mineralization within the copper deposits; detailing and testing the presently identified adjacent epithermal gold mineralization; and relating the sedimentary sulphide horizons to similar style mineralization presently mined by Western Mines at Buttle Lake to the south.

PROPERTY GEOLOGY

Mapping of the McIntosh Group was conducted around the two grids that were established. Mapping in the area of McIntosh Mountain showed it to be underlain predominantly by an intensely silicified breccia containing areas of quartz vein stockwork. The quartz vein stockwork extends along the ridge for over 300 metres. On the south end of the ridge andesites and tuffs with quartz vein stockwork and pervasive silica alteration were mapped. Pyrite content was low in all rocks mapped on McIntosh Mountain.

The South McIntosh grid was centred on intense kaolinization, sericitization, carbonitization and pyrite replacement to the south of a quartz diorite intrusive. This area is 2.8 kilometres south of McIntosh Mountain but is along the same ridge. Rocks in the south Mcintosh area consisted of andesites with high propilittic alteration and varying degrees of silicification and kaolinization of the Lower Jurassic Bonanza Formation. An intensely silicified breccia was mapped on the hilltops in South McIntosh. Pyrite content varied from trace to massive in areas of pyrite replacement (Figure 5).

Outcropping between McIntosh Mountain and South McIntosh is a large quartz diorite pluton. this pluton is unaltered and contains only trace pyrite.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NANAIMO MINING DIVISION, B.C.
PROPERTY GEOLOGY & SAMPLE LOCATIONS
DAIWAN ENGINEERING LTD.
SCALE 1 : 10,000
DATE SEPT., 1989
FIG. 5
SCALE
m. 0 100 200 300 400 500 m.
LEGEND
Propylitic alteration
Siliceous breccia
Bonanza volcanics, tuffs, andesites
Quartz feldspar porphyry
Diorite - Qtz diorite - Monzonite
Rock sample location
Contact assumed
Creek
Road
Fault
N
245,000 N
240,000 N

GEOCHEMICAL SURVEY

In 1968 BHP-Utah Mines conducted a geochemical survey over the entire Expo Claim Group. This survey was conducted with lines spaced 152.4 metres (500 feet) and stations every 61 metres (200 feet). The samples were assayed for copper and molybdenum only. In the fall of 1988, Daiwan Engineering reassayed 940 of the pulps of these soils in the area of McIntosh Mountain. These samples were reassayed at Acme Analytical Laboratories in Vancouver using the ICP and Atomic Absorption methods described below. The samples were assayed for gold, arsenic, bismuth, tellurium, selenium and germanium.

The gold and arsenic results were plotted on Figures 7 and 8 and anomalous values were visually derived.

The gold plots show a range in values from 1 to 939 PPB, and values over 10 PPB were considered anomalous. Two main areas of interest are defined. The first is located in an area known as South McIntosh and covers an area approximately 600 meters x 600 metres, centred around a high value of 368 PPB. The second area of interest is centred around McIntosh Mountain, here values range up to 939 PPB and the area covers 1,000 metres x 800 metres.

Arsenic values ranged from 0.2 to 113.2 PPM and values over 10 PPM were considered anomalous. The arsenic plot outlines the area of interest on McIntosh Mountain but the area of South McIntosh shows only minor arsenic highs.

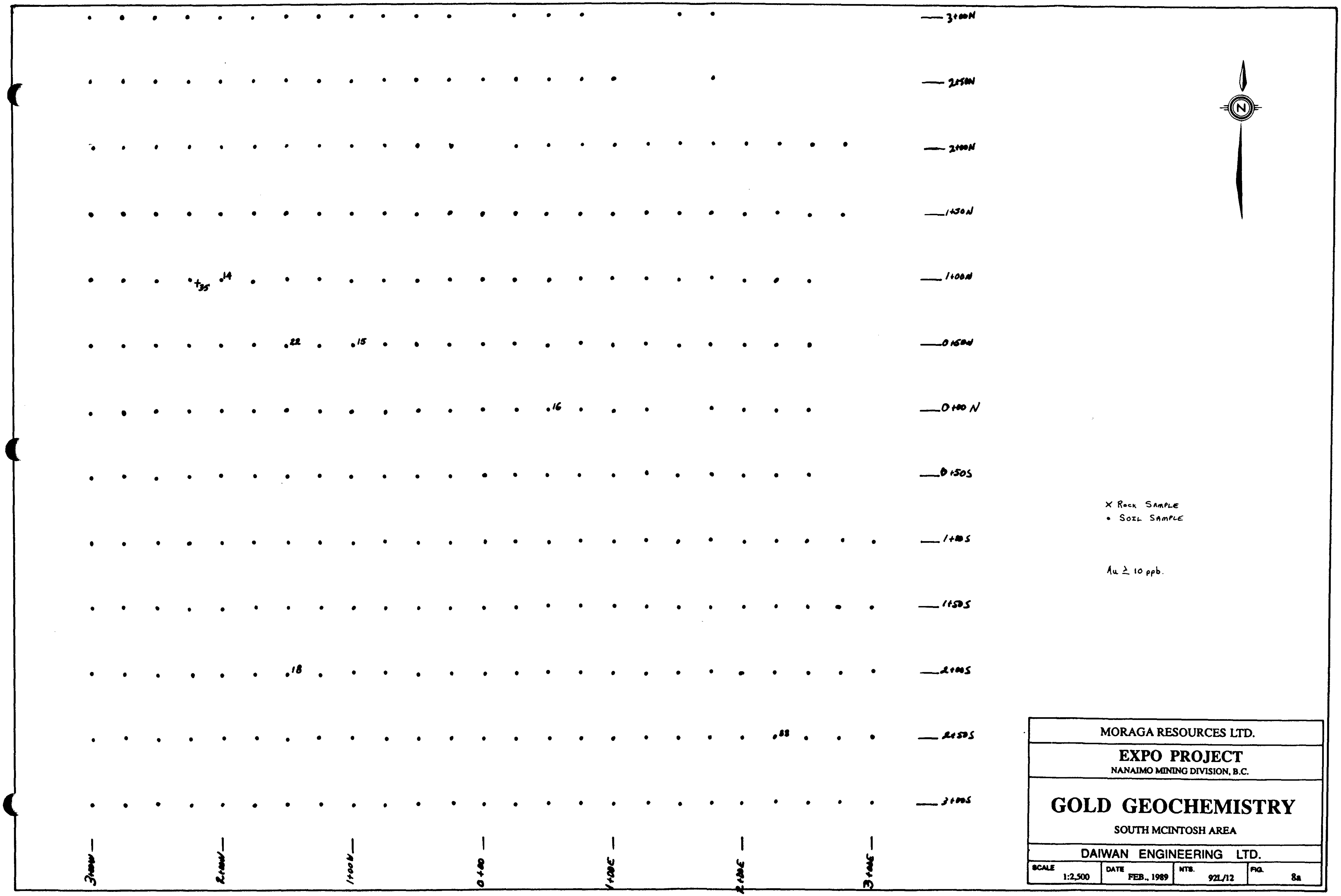
Similarly the results for tellurium, bismuth and selenium outline the two main areas of interest. Values range from 0.3 to 4.8 PPM for tellurium, from 0.1 to 45.7 PPM for bismuth and from 0.2 to 29.3 for selenium.

From the information in the reassaying of old pulps, Daiwan Engineering conducted an exploration program on each of the two areas of interest, details are as follows:

South McIntosh

During exploration on the South McIntosh area, a total of 53 rock samples and 291 soil samples were collected. A 7 kilometre grid was established and soil sampled in an area of interest outlined by the reassaying of pulps from a previous survey (Utah 1968).

The soil samples were collected with a soil maddock from the B horizon from a depth of between 20 and 75 centimetres. The soils were placed in a waterproof brown paper bag and sent to Vancouver for analysis.



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EXPO PROJECT

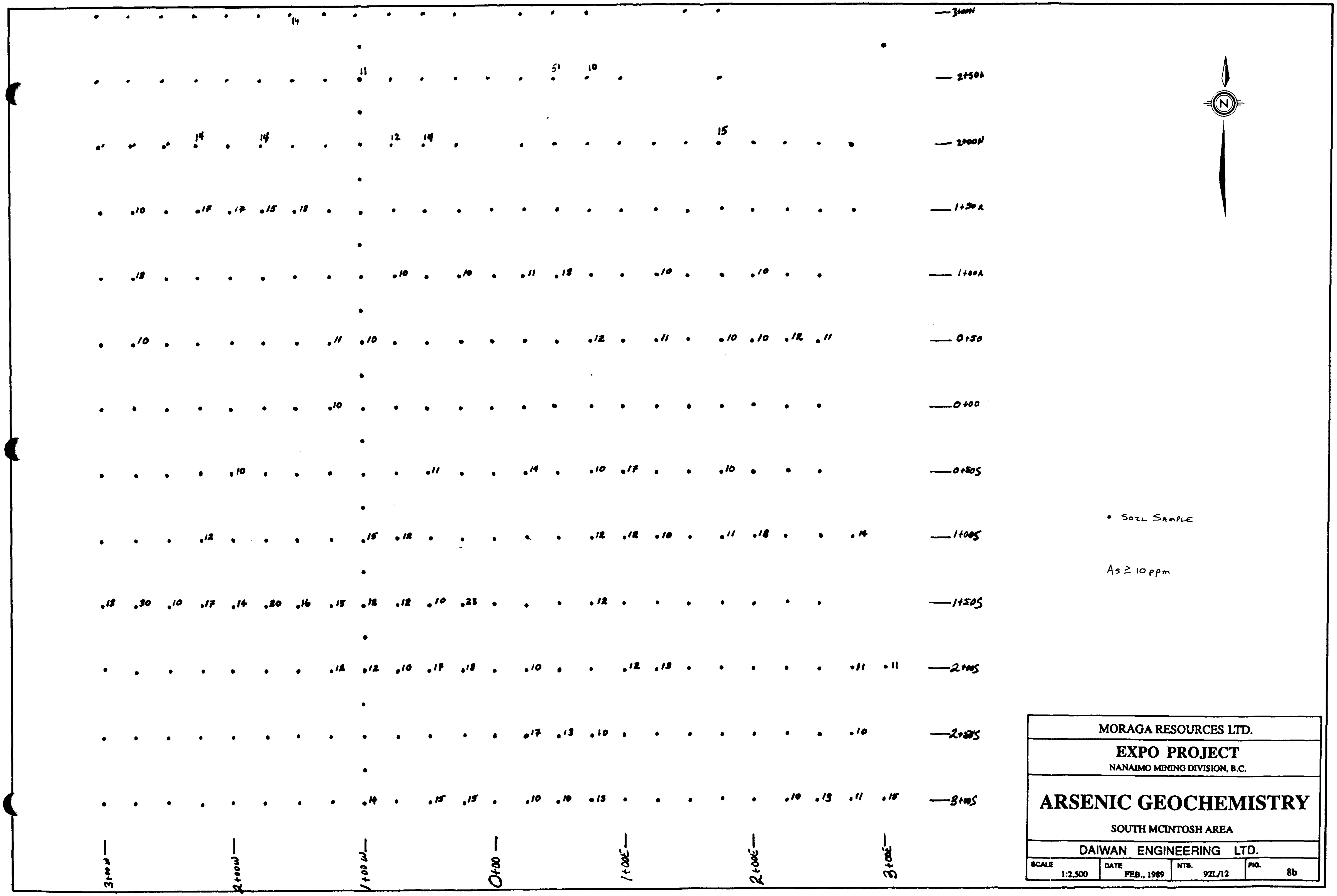
NANAIMO MINING DIVISION, B.C.

GOLD GEOCHEMISTRY

SOUTH MCINTOSH AREA

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1:2,500	FEB., 1989	92L/12	8a



MORAGA RESOURCES LTD.

EXPO PROJECT

NANAIMO MINING DIVISION, B.C.

ARSENIC GEOCHEMISTRY

SOUTH MCINTOSH AREA

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1:2,500	FEB., 1989	92L/12	8b

The rock samples were collected from outcrop mapped in the area and were representative chip samples.

The samples were delivered to Acme Analytical Laboratories Ltd. in Vancouver where the soils were dried and screened to -80 mesh and the rocks were crushed and powdered to -80. The soil samples were then analyzed for copper, lead, zinc, arsenic, and silver by I.C.P. The I.C.P. assay involves the digestion of 0.500 grams of the sample with 3-1-2 HC1 - HN03 -H20 acid at 95 degrees celsius for one hour. The sample is then diluted to 10 ml with water and analyzed. The soil samples were also analyzed for gold by acid leach and atomic absorbtion by Acme Labs.

The rocks were crushed and powdered to -80 mesh and analyzed by Atomic Absorbtion for gold.

Results

The gold and arsenic results from the soil survey were plotted at a 1 to 5,000 scale (see Figures 9 & 10).

Gold values ranged from 1 to 33 PPB and only 6 samples contained more than 10 PPB. These 6 samples occur as spot anomalies over the grid.

Arsenic values ranged from 2 to 51 PPM and only 12 samples contained over 15 PPM. Slightly elevated arsenic occurs in the south west portion of the grid. The remaining 4 elements analyzed for failed to produce any anomalous values. A complete list of assay certificates can be found in Appendix 3.

The 53 rock samples taken from the claims were analyzed for gold. The values ranged from 1 to 35 PPB and only 3 rocks contained over 10 PPB gold, and none can be considered anomalous.

McIntosh Mountain

A 4.5 kilometre grid was laid out on the south end of McIntosh mountain. Snow conditions limited sampling to 1 kilometre of the grid (37 soil samples). The area was mapped at a 1 to 5,000 scale and 21 rock samples were collected.

The samples were sent to Acme Labs in Vancouver and analyzed in the same manner as those from the South McIntosh area.

Results

The soil samples taken from the grid had a range in gold values from 1 to 490 PPB. Due to the limited number of samples taken, no definite trends were established.

The 21 rock samples ranged from 1 to 1,645 PPB in gold and only 3 samples contained more than 400 PPB.

Sample 41625 taken from the silica breccia near DDH-154 contained 980 ppb gold. Samples 41631 and 41632 contained 1645 ppb and 410 ppb gold and were taken from a highly silicified andesite with minor quartz stringers, and a quartz filled fracture. All three samples were taken from the area of the grid (see Figure 5).

A complete list of sample descriptions and assay certificates can be found in Appendices 2 and 3.

CONCLUSIONS

1.0 The claims cover ground immediately adjacent to the Hushamu Copper Deposit.

2.0 The area of McIntosh Mountain contains significant gold mineralization.

3.0 The area of South McIntosh contains areas of extensive argillic alteration, although no evidence was found on surface, this alteration may indicate a replacement deposit.

4.0 Results from rock and soil samples show anomalous gold and copper values.

RECOMMENDATIONS

1.0 The existing grid on McIntosh Mountain should be soil sampled and extended.

2.0 The grid on South McIntosh should be extended to the north.

3.0 A track should be made up to McIntosh Mountain to provide excavator access.

4.0 Detailed geologic mapping on McIntosh Mountain to better define gold mineralization.

5.0 Trenching and drilling may help to define gold mineralization outlined by mapping and geochemical sampling.

STATEMENT OF COSTS - (McIntosh)

1.0	Personnel	
	1 Senior Geologist - 2 days @ $380/day	$ 760.00
	1 Project Geologist - 1.125 days @ $260/day	292.50
	1 Project Geologist - 28.75 days @ $240/day	6,900.00
	1 Field Assistant - 8.5 days @ $210/day	1,785.00
	1 Field Assistant - 51 man days @ $105/day	5,355.00
		15,092.50
2.0	Assays	
	940 Soils (reassay)	10,280.60
	233 Soils - 5 Element I.C.P. + Au	3,002.48
	35 Rocks Geochem Au	
	58 Soils - 5 Element I.C.P. + Au	1,235.33
	28 Rocks	
	37 Soils - 5 Element I.C.P. + Au	925.34
	21 Rocks	
		15,443.75
3.0	Food and Accommodation	886.97
4.0	Transportation	2,548.54
5.0	Supplies	260.40
6.0	Equipment Rental	151.80
7.0	Drafting	1,496.35
8.0	Office	379.43
		36,259.74
9.0	Regional Mapping Proportion (see attached schedule)	20,972.92
		$57,232.66

STATEMENT OF COSTS - (Regional)

1.0	Personnel	
	1 Senior Geologist - 19 days @ $380/day	$ 7,220.00
	1 Project Geologist - 46 days @ $360/day	17,760.00
	1 Geologist - 2 days @ $260/day	520.00
	1 Geologist - 20.1 days @ $240/day	4,824.00
	1 Draftsperson - 4.4 days @ $200/day	880.00
		31,204.00
2.0	Assays	
	125 Rocks - 30 Element I.C.P.	2,248.92
	3 Rocks F.A.	30.60
	7 Rocks Geochem Au	69.00
	4 Rocks Ag, Au F.A.	72.96
		2,421.48
3.0	Food and Accommodation	2,932.63
4.0	Transportation	5,708.22
5.0	Supplies	2,681.93
6.0	Maps	1,792.94
7.0	Office	633.95
8.0	Miscellaneous	833.16
8.0	Drafting	14,709.96
		$62,918.77

CERTIFICATE OF QUALIFICATIONS

I, Rod W. Husband, do hereby certify that:

1. I am a geologist for Daiwan Engineering Ltd. with offices at 1030 - 609 Granville Street, Vancouver, British Columbia.
2. I am a graduate at the University of British Columbia with a degree of B.Sc.,Geology.
3. I have practised my profession since completion of my degree in December 1986.
4. This report is based on work done on the property from November 22, 1988 to February 28, 1989 and information obtained from previous reports by professional engineers and others who have examined the property.
5. I have no interest in the property or shares of Moraga Resources Ltd. or in any of the companies contiguous to the McIntosh Claim Group, nor do I expect to receive any.

Rod Husband

Rod W. Husband, B.Sc.
August 25, 1989

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APPENDIX 1

CLAIM DATA

Schedule - Claims of the Macintosh Group, Nanaimo M.D., B.C.

Claim Name	# of units	record #
Don 4 Fr	1	29503
Don 5 Fr	1	29504
Don 6 Fr	1	29505
Don 9 Fr	1	30281
Don 10 Fr	1	30282
Don 11 Fr	1	30283
Don 12 Fr	1	30284
Don 13 Fr	1	30285
Don 14 Fr	1	30286
Expo 190	1	20301
Expo 192	1	20303
Expo 199	1	20310
Expo 200	1	20311
Expo 201	1	20312
Expo 202	1	20313
Expo 203	1	20314
Expo 219	1	20330
Expo 220	1	20331
Expo 221	1	20332
Expo 222	1	20333
Expo 223	1	20334
Expo 224	1	20335
Expo 225	1	20336
Expo 226	1	20337
Expo 227	1	20481
Expo 228	1	20482
Expo 229	1	20483
Expo 230	1	20484
Expo 231	1	20485
Expo 232	1	20486
Expo 233	1	20487
Expo 234	1	20488
Expo 235	1	20489
Expo 236	1	20490
Expo 237	1	20491
Expo 239	1	20493
Expo 240	1	20494
Expo 241	1	20495
Expo 242	1	20496
Expo 243	1	20497
Expo 244	1	20498
Expo 245	1	20499
Expo 246	1	20500
Expo 247	1	20501
Expo 248	1	20502

Claim Name	# of units	Record #
Expo 249	1	20503
Expo 250	1	20504
Expo 251	1	20505
Expo 252	1	20506
Expo 253	1	20507
Expo 254	1	20508
Expo 255	1	20509
Expo 256	1	20510
Expo 257	1	20511
Expo 258	1	20512
Expo 259	1	20513
Expo 260	1	20514
Expo 261	1	20515
Expo 262	1	20516
Expo 263	1	20517
Expo 264	1	20518
Expo 265	1	20519
Expo 266	1	20520
Expo 267	1	20521
Expo 268	1	20522
Expo 269	1	20523
Expo 270	1	20524
Expo 271	1	20525
Expo 272	1	20526
Expo 273	1	20527
Expo 274	1	20528
Expo 277	1	20531
Expo 278	1	20532
Expo 279	1	20533
Expo 280	1	20534
Expo 281	1	20535
Expo 283	1	20537
Expo 285	1	20539
Expo 287	1	20541
Expo 289	1	20543
Expo 290	1	20544
Expo 291	1	20545
Expo 292	1	20546
Expo 293	1	20547
Expo 294	1	20548
Expo 298	1	20551
Expo 300	1	20553
Expo 312	1	21118
Expo 323	1	21578
Expo 324	1	21579
Expo 325	1	21580
Expo 326	1	21581

Claim Name	**# of units**	**Record #**
Expo 501 Fr	1	20610
Expo 525	1	21617
Expo 526	1	21618
Expo 527	1	21619
Expo 528	1	21620
Expo 530	1	21622
Expo 891	1	21304
Expo 1011	1	27355

Total **100 units**

APPENDIX 2

SAMPLE DESCRIPTIONS

Sample #	Description	Au ppb
41553	Min. & fractured siliceous rx w1 kaolin - QFP? (PGD-01)	
41555	Large kaolinized & silicified outcrop - silicified volcs. microfractures (PGD-02)	
41556	Kaolinized siliceous volcs. W1 20% pyrite (PGD-03)	
41557	Kaolinized volcanics - fine siliceous zone then into pyritic zone (PGD-04)	
41558	5cm wide fault in siliceous volcs (andesite) highly altered - bleached - zeol. stringers 014/62°c	2
41559	Junction of 2 fractures 036/72°SE & 308/90 - highly fractured and bleached w zeol. stringers	1
41560	Bleached and? por? grey w feld xtls. highly bleached py 20-40%	3
41561	Tuff w shards bleached clay alt. moderately fractured	1
41562	Bleached and. clay alteration grey mod-high fractures low py <10%?	1
41563	Pyrite (lens) grey in minor fault zone $.5m 308/68°NE	1
41564	Hanging wall alt. kaol. rusted in fractures	1
41565	Footwall alt. bleached clay minor rust	2
41566	Bleached mod. fractured for and.? highly altered QFP?	1
41567	Contact 072/34°NW between MSV unaltered and. and overlying intrusive? (por and?) highly alt.	1
41568	Highly bleached fractured por and? QFP? minor fault 300/50°NE	1
41569	Unaltered andesite with white zeol? stringers + red orange clay	1
41570	Silicified bleached volcs (and.) <5% dissem py grey v fine py? to 30%	3
41571	Silicified bleached por and? mod-highly fractured MSV py in pods?? to 25%	1
41572	Kaolinized volcs py 20-30% low fractures. Black staining (MO?)	6
41573	Minor fault (30cm) between py rich volc and QFP? or por and. (feld QZ phenos)	2
41574	Highly fractured - QFP? much rusting (limonite) bleached dissem py <10%	1
41575	Py rich QFP? 20-30% bleached low-mod fractures	6
41576	Py rich volc 20-30% mod-high fractures - highly silicified	1
41577	MSV py minor fractures highly rusted	4
41578	MSV py	1
41579	Highly bleached kaolin. fault zone 3m wide in volc (and.)	1
41580	Kaolinized fault 1m across 046/80°SE in volcs (and.) MSV unaltered	1
41581	Fault 50 cm 046/74SE to 90SE grey not kaolinized in MSV unaltered volcs.	1
41582	Fault 30cm as above - py to 30%	4
41583	Kaolinized fracture zone in andesite - mod-high fractured mod. siliceous	16
41584	Py rich 25-35% fracture zone 040/85°SE in andesite clay? alteration (grey)	2
41585	MSV py 55-65% w/calcite stringers w/py coating both sides (<2mm) 052/70°NW	2

Sample #	Description	Au ppb
41586	MSV py - no stringers - fault zone? mod. bleaching 090/80°N	3
41587	Highly silicified volc. minor rust - no obvious sulfides low fractures	3
41588	Silicified MSV py 40-50% minor clay - low fractures	1
41589	Siliceous breccia - low-mod fractures minor py	2
41590	Highly silicified py rich 40-50% in spots highly fractured	9
41591	Highly silicified breccia (qz-feld-clasts) minor kaolinization. Purple-green (Cu??) on some fractures	35
41592	Silicified breccia mod. fractures - buff weathered	7
41593	S.Mc. and - low-mod fract. minor dissem. py some clay on fract. surfaces	5
41594	S.Mc and - mod fract. unalt. narrow fault - 15cm 145/75°NE 5-7% dissem. py	1
41595	S.Mc and - mod. fract. pods? of ___ py seem related to high kaolin zones	1
41596	S.Mc. and? - highly kaolinized highly fract. py 10-25% dissem.	1
41597	S.Mc. float - and? or por and minor alt. <5% dissem py	1
41598	S.Mc. and - propyllitic altered zeol? (clay) stringers minor py	1
41599	S.Mc. and - highly kaolinized py rich 20% low fract.	1
41600	S.Mc. and - highly fractured highly rusted ____ py in places mod. alt.	1
41601	S.Mc. and - highly siliceous and bleached py to 10% cp? mod. fractures	1
41602	S.Mc. QFP? - mod-high fractured siliceous rusted low fractures minor py	5
41603	S.Mc. micro breccia? - highly siliceous mod. fract. mod. alt. minor py	25
41604	S.Mc. and - siliceous mod. fractured 5% dissem. py	14
41605	S.Mc. siliceous breccia - low-mod fractured <5% dissem. py cp? & along fractures	1
41606	S.Mc. siliceous breccia - low fractures <5% dissem/ py cp? & on fractures	1
41621	Mc.Mt. siliceous breccia near DDH-86 minor py low fractures	5
41622	Mc.Mt. siliceous breccia near DDH-86 minor py low fractures	136
41623	Mc.Mt. highly silicified breccia cap py <5% minor	112
41624	Mc.Mt. highly silicified breccia cap py <5% minor	265
41625	Mc.Mt. highly siliceous breccia near DDH-154 minor py	980
41626	Mc.Mt. highly siliceous breccia near DDH-154 minor py	82
41627	Mc.Mt. highly siliceous breccia near DDH-154 minor py	32
41628	Mc.Mt. highly siliceous breccia near DDH-154 minor py	28
41629	Mc.Mt. fault - 30cm wide 137/80°NE kaolinized dissem py	154
41630	Mc.Mt. host to 41629 - siliceous breccia - mod. fractures minor py	85
41631	Mc.Mt. silicified and - minor au stringers py ≤5%	1645
41632	Mc.Mt. site of 41631 - qy filled fracture mod-high fractured (crumbly) py <5% 025/80°SE	410

Sample #	Description	Au ppb
41633	Mc.Mt. fault - 10cm 045/75-80°SE kaolinized qy with 7% dissem py	119
41634	Mc.Mt. siliceous breccia - minor py - low fractures	25
41635	Mc.Mt. siliceous and - mod. fractures minor py buff weathered	17
41636	Mc.Mt. siliceous and - mod. fractures minor py buff weathered	26
41638	Mc.Mt. diorite-qz diorite? - highly limonitic high fractures highly altered	4
41637	Mc.Mt. siliceous breccia low fractures minor py	3
41639	Mc.Mt. diorite? - highly limonitic high fractured siliceous Mn staining (black)	1
41640	Mc.Mt. silicified qz diorite? py rich ____ py blebs high fractures	2
41641	Mc.Mt. siliceous knob on creek edge surrounded by pyrite clay zones	1
32701	S.Mc. QFP diorite? - highly kaolinized (altered) highly fractured py 7-8% clay py seems within	5
32702	S.Mc. silicified breccia - 10cm next to py rich seem	1
32703	S.Mc. and - propyllitic altered 5-7% dissem. py mod fractures	1
32704	S.Mc. pyrophyllite? breccia mod fractures <5% py dissem. and along fractures	1
32705	S.Mc. propyllitic altered and - mod fractures py <5%	1
32706	S.Mc. fault - 104/80°S 30cm wide limonitized minor py	2
32707	S.Mc. fault 090/90 - 20cm wide high altered	1
32708	S.Mc. and - low fractures minor py zeol. stringers	1
32709	S.Mc. fault - 113/70°N - siliceous with abundant py	1
32710	S.Mc. kaolinized - pyritic fault 110/80°N	1
32711	S.Mc. msv py seam 3-4 metres wide at 110/80°N	2
32712	S.Mc. siliceous breccia next to py seam near kaolinized zone	1
32713	S.Mc. QFP diorite? - highly fractured highly altered (kaolinized) crumbly py - 5-7%	1
32714	S.Mc. QFP diorite? - py ~10% next to py seam @ 34519	1
32715	S.Mc. QFP? diorite? - highly altered (kaolin) py 10% but msv in parts (seams??)	1
32716	S.Mc. QFP? diorite? - highly altered (kaolin) py 10% but msv in parts (seams??) fractures 030/70°SE	1
32717	S.Mc. QFP? py rich 20%-30% brecciated and silicified mod fractured 040/33°NW	1
32718	S.Mc. msv and dark green zeol. stringers	1
32719	S.Mc. kaolinized pyrite zone intensely alt. highly fractures.	1
32720	S.Mc. pyrophyllite? breccia buff weathered clayey breccia minor py mod-high fract.	1
32721	S.Mc. pyrophyllite? breccia buff weathered clayey breccia minor py mod-high fract.	1

Sample#	Location	Type	Description	Results
33001	Pemberton Main	chip	xstal tuff w sk. hyd. alt.	327 Mn
33002	Pemberton Main	chip	xstal tuff w mo. hyd. alt.	19 ppb Au
33003	Pemberton Main	chip	heavily silic. w Fe stain	
33004	Pemberton Main same site as PED#6	chip	grey volcaniclastic 5-10% Py	
33005	Pemberton Main	chip	rhyolitic flow; breccia 2-3% Py	
33006	Pemberton Main	chip	rotten and.	
33007	Pemberton Main	chip	porph. and. breccia	
33008	Pemberton Main	chip	and. porph. wk. hydro alt.	449 Mn/12 ppb Au
33009	Pemberton Main	chip	and. w. wk. hydro alt.	713 Mn/18 ppb Au
33010	Pemberton Main	chip	bonanza volc. wk. hyd. alt.	1071 Mn.
33011	Pemberton Main	chip	bonanza volc. ≤ 1% Py	363 Mn
33012	WN 900 Quarry	chip		233 Mn
33013	WN 900	chip	diorite w feld alt.	394 Mn
33014	WN Main "F"	chip	B. volc. rotten wk. hyd. alt.	388 Mn/10 ppb Au
33015	Cleskagh Ck. @ Rd.	float	siliceous, angular bldr. grey Py patch	
33016	Cleskagh Ck. @ Rd.	float	chalcedonic frag. w Fe stain	
33017	Cleskagh Ck. @ Rd.	float	propyllitic bldr. slight kaolin	802 Mn
33018	Cleskagh Ck. @ Rd.	chip	Py breccia w qtz-carb vein	
33019	WN Main Quarry 300m W of WN 100	chip	B. volc w 1cm qtz. vein	1,246 Mn
33020	WN 101B	chip 5m	B. volc wk-mod hydro. alt.	446 Mn
33021	WN 101B	chip 3m	B. volc silic. wk pink alt. in veins	1,053 Mn
33022	Main Rd.	chip	B. volc we-mod alt.	578 Mn

Sample#	Location	Type	Description	Results
33023	Side Rd. off Holberg Connection	chip	B. volc breccia w wk-mod hydro alt.	442 Mn
33024	Side Rd. off Holberg Connection	chip	B. volc breccia w wk-mod hydro alt.	588 Mn
33025	Side Rd. off Holberg Connection	chip	B. volc w wk. hydro alt. 565 Sr/157V	1,262Mn/
33026	Side Rd. off Holberg Connection	chip	B. volc w hydro breccia 1m	342 Mn/104V
33027	Side Rd. off Holberg Connection	chip	B. volc w hydro breccia over 1m	550 Mn/126 Sr/ 119V
33028	Side Rd. off Holberg Connection	chip	B. volc w hydro breccia 3-4 m	816 Mn
33029	Side Rd. off Holberg Connection	chip	B. volc wk hydro alt.	352 Mn/120 Sr
33030	Side Rd. off Holberg Connection	chip	B. volc wk hydro alt	684 Mn/26 ppb Au
33031	Red Dog	chip 1.5 m	B. volc tuffaceous wk. hydro alt. w carb/zeol	898 Mn
33032	Red Dog	float	hydro breccia w carb/zeol	471 Mn
33033	Red Dog	chip 2m	B. volc tuffaceous wk hydro alt.	700 Mn
33034	Red Dog	chip 1m	B. volc tuff. hydro alt. fractures	1,044 Mn
33035	Red Dog (other claim)	chip	intrusive hydro alt.	856 Cu/320 ppb Au
33036	Red Dog (other claim)	chip	intrusive hydro alt.	290 Sr/12 ppb Au
33037	Red Dog (other claim)	chip	intrusive hydro alt.	149 Mn/41 ppb Au
34501	McIntosh Mtn. 20m N. 2440N, 2329E	grab 5m	heavily silicified	82 Mo/56 ppb Au
34502	McIntosh Mtn. NW of 34501	chip	heavily silicified	61 ppb Au
34503	McIntosh Mtn. 12m N. of 34554	grab	heavily silicified w 1/2" qtz. stringers	

Sample#	Location	Type	Description	Results
34504	McIntosh Mtn. 20m N. of 34503	grab	heavily silicified w 1/4" qtz. stringers	19 ppb Au
34505	McIntosh Mtn.	grab	heavily silicified w 1/4" qtz. stringers, minor limonite	70 Mo/113 ppb Au
34506	McIntosh Mtn.	grab	milky qtz. zone 1.5m	26 ppb Au
34507	H1000	grab 3m	massive py	17 ppb Au
34508	H1000	grab 3m	massive Py	429 Mn
34509	H1000	grab 2m	QFP w dissem. Py	475 Mn/11 ppb Au
34510	H1000	chip	QFP	
34511	H1000	grab	QFP w clay	
34512	H1000	grab 3m	QFP w dis. Py grey	
34513	H1000	grab	QFP w dis. Py grey	
34514	H1000	grab	QFP no Py	390 Mn
34515	H1020	grab	QFP w kaolin	
34516	H1020	grab	QFP(?) sil. kaolin Py	120 Mn
34517	H1020	grab		187 Mn
34518	H1020	grab 3m	QFP w Py grey	394 Mn
34519	H1020	grab 3m	QFP w Py grey	
34520	H1031	grab		156 Sr
34521	Quarry Between Pm 200 + PM 300	grab	QFP w Py clay alt.	162 Mn
34522	Pemberton 100		sinter cone kaolin andesite	
34523	Pemberton 100 pit 100m W of Sinter Cones		bedded Py	556 Mn/110V/ 16 ppb Au
34524	Pemberton 100 1100m W Sinter Cones	grab		797 Mn/147V

Sample#	Location	Type	Description	Results
34525	Pemberton 100	grab 3m	bedded py (across bedding)	460 Mn/122V
34526	Pemberton 100	grab 3m	bedded Py W of Sinter Cones (across bedding)	
34527	Pemberton 100	grab	andesite Bx. siliceous kaolin	
34528	Pemberton 100	grab	QFP	1,578 Mn
34529	Pemberton 100		andesite Bx. siliceous	
34530	Holberg Connection		qtz. vein	411 Mn/55 ppb Au
34531			fumarole Bx.	
34532	Rd. W of Hushamu Lake		B. volc dis. Py bleached	
34533	Rd. W of Hushamu Lake 25m E 34532		carb veinlets *limonite	139 Zn/1,060 Mn/ 9 ppb Au
34534	Rd. W of Hushamu Lake		bonanza carb veinlets	700 Mn/270 Sr
34535				15 ppb Au
34536	Rd. SSW of Hushamu Lake		volc grey siliceous Py	1,193 Mn
34537	Rd. SSW of Hushamu Lake			QFP w clay dis. Py
34538	Holberg Connection		Limestone (old sawmill site)	128 Mn/323 Sr
34539	Hushamu Main 250m S Jnct. w 1400		hydro alt. kaolinized intrusive	350 Mn
34540	Hushamu Main 250m S Jnct. w 1400		hydro alt. kaolinized intrusive	210 Mn
34541	H1500 Jnct. H1540		B. volc w carb stringers	463 Mn/117V
34542	WN Main	grab	B. volc kaolinized	373 Mn
34543	WN Main	grab	B. volc Py	

Sample#	Location	Type	Description	Results
34544	WN 1200 Pit SW of Rd.	grab	B. volc Py	
34545	Hushamu Rd. 2K N of Dump		rusty conglomerate	415 Mn/104 Sr
34546	Red Dog EC-1 Rd. cut E of Rd.		B. volc sil. bleached Py vein	1,509 Cu/290 ppb Au
34547	Red Dog EC-1 Rd.	grab 2.5m	B. volc limonite	1,374 Cu/134V/ 45 ppb Au
34548	Red Dog EC-1 Rd.	grab	surficial conglomerate	595 Cu/128V/ 13 ppb Au
34549	Red Dog EC-1 Rd. 20m S 34548	grab 1.5m	B. volc hydro alt.	581 Cu/440 ppb Au
34550	Red Dog EC-1 Rd.		surficial conglomerate	442 Mn/22 ppb Au
34551	McIntosh Mtn.	chip	heavily siliceous	19 ppb Au
34552	McIntosh Mtn.	chip	siliceous sinter	148 Mo/479 Cu/ 352 As/109 Au
34553	McIntosh Mtn.	chip	stockwork siliceous w qtz. veins ≤ 1/4"	85 ppb Au
34554	McIntosh Mtn.	chip	stockwork siliceous w qtz. veins ≤ 1/4"	
34555	McIntosh Mtn.	grab	wk. sinter w qtz. stringers	46 ppb Au
34556	McIntosh Mtn. SW DDH 154	chip 0.5m	heavily silicified w qtz. stringers ≤ 1 cm	1,205 ppb Au
41501	Red Dog Resample 34546	grab 2.5m	sil. Py vein	63 ppb Au
41502	Red Dog Resample 34547	grab	float selected from sil. Zn east wall of quarry	192 ppb Au
41503	Rd. W End of Nahwitti Lake	grab	float sil. skarn Py	13 ppb Au/206 Mn

Sample#	Location	Type	Description	Results
41504	Rd. W End of Nahwitti Lake	grab	float sil. skarn Py	575 Cu/101 As/ 65 ppb Au
41505	Rd. W End of Nahwitti Lake	grab	float sil. volc w ribbon qtz.	609 Mo/622 As/ 88 ppb Au
41506	Rd. W End of Nahwitti Lake 200m S	grab	float black bedded limestone w w calcsil. + Py	316 Mn/143 Sr
41507	Rd. W End of Nahwitti Lake 200m S	grab	float black bedded Lst without calcsil + Py	221 Mn/258 Sr
41508	Red Dog Pit L1 #1	chip		232 Cu/137 Mn/ 108V/10 ppb Au
41509	Red Dog Pit L1 #2	chip		386 Mo/666 Cu/ 75 ppb Au
41510	Red Dog Pit L1 #3	chip		166 Mo/1,947 Cu/ 28 ppb Au
41511	Red Dog Pit L2 #1	chip		364 Cu/459 Mn/ 17 ppb Au
41512	Red Dog Pit L2 #2	chip		367 Cu/352 Mn/ 19 ppb Au
41513	Red Dog Pit L2 #3	chip		140 Mo/32 ppb Au
41514	Red Dog Pit L2 #4	chip		121 Mo/141 ppb Au
41515	Red Dog Pit L3 #1	chip		83 Mo/43 ppb Au
41516	Red Dog Pit L3 #2	chip		207 Mo/200 ppb Au
41517	Red Dog Pit L3 #3	chip		175 Mo/55 ppb Au
41518	Red Dog Pit L4 #1	chip		471 Cu/256 Mn/ 36 ppb Au
41519	Red Dog Pit L4 #2	chip		164 Mo/4,811 Cu/ 550 ppb Au
41520	Red Dog Pit L4 #3	chip		89 Mo/1,900 Cu/ 290 ppb Au

Sample#	Location	Type	Description	Results
41521	Red Dog Pit L4 #4	chip		92 Mo/7,177 Cu/ 1,060 ppb Au
41522	Red Dog Pit L4 #5	chip		192 Mo/1,003 Cu/ 1,140 ppb Au
41523	Red Dog Pit L5 #1	chip		63 Mo/3,150 Cu/ 820 ppb Au
41524	Red Dog Pit L5 #2	chip		407 Cu/146 ppb Au
45125	Red Dog Pit L6 #1	chip		211 Mo/1,862 Cu/ 230 ppb Au
41526	Red Dog Pit L7 #1	chip		68 Mo/110 Cu/ 31 ppb Au
41527	Red Dog Pit L8 #1	chip		3,399 Cu/229 Mn/ 29 ppb Au
41528	Holberg Rd. Quarry 200m up Rd. to LCP WIN 1		epidote Py calc. skarn contact zone granite/Parson Bay	996 Zn/1,330 Mn/ 53 ppb Au/ 22.3 Ag
41529	Holberg Rd. Quarry 200m up Rd. to LCP WIN 1		chloritized carb. veins	422 Mn/135 Sr
41530	Rd. to LCP WIN 1		Parson Bay tuff w limonite siliceous next to granite contacts	816 Mn
41531	Holberg Rd.		B. volc hydro alt. limonite siliceous	40 ppb Au
41532	Holberg Rd.		B. volc hydro alt. clay gouge portion	315 Zn/221 Mn/ 330 ppb Au

APPENDIX 3

ASSAY CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: FEB 24 1989
DATE REPORT MAILED: Feb. 27/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

- SAMPLE TYPE: ROCK
AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY.......... D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0429 Page 1

SAMPLE#	AU* ppb
D 32701	5
D 32702	1
D 32703	1
D 32704	1
D 32705	1
D 32706	2
D 32707	1
D 32708	1
D 32709	1
D 32710	1
D 32711	2
D 32712	1
D 32713	1
D 32714	1
D 32715	1
D 32716	1
D 32717	1
D 32718	1
D 32719	1
D 32720	1
D 32721	3
D 32722	2
D 32723	360
D 32724	950
D 32725	1130
D 32726	19
41621	5
41622	136
41623	112
41624	265
41625	980
41626	82
41627	32
41628	28
41629	154
41630	85

SAMPLE#	AU* ppb
41631	1645
41632	410
41633	119
41634	25
41635	17
41636	26
41637	3
41638	4
41639	1
41640	2
41641	1

South McIntosh

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: JAN 31 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: Feb. 6/1989

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 - P7 SOIL P8 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY........ D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0226 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
150N 300W	37	17	35	.1	9	4
150N 275W	24	14	27	.2	10	1
150N 225W	54	30	47	.2	17	1
150N 200W	43	25	34	.2	17	1
150N 175W	44	28	40	.3	15	2
150N 150W	20	13	31	.1	13	1
150N 125W	22	17	22	.2	5	3
150N 100W	12	7	12	.1	3	1
150N 050W	30	12	18	.2	6	1
150N 025W	31	24	30	.1	7	1
150N 000E	5	2	4	.1	2	3
150N 025E P	6	2	10	.4	2	1
150N 050E P	6	4	10	.7	2	2
150N 075E P	7	2	5	.3	2	1
150N 100E P	5	3	16	.4	2	1
150N 125E P	4	2	8	.3	2	1
150N 150E	10	2	3	.1	2	1
150N 175E	5	8	3	.1	2	2
150N 200E	26	7	18	.1	3	1
150N 250E P	13	2	6	.1	2	1
100N 300W	29	19	33	.2	8	2
100N 275W	50	15	45	.1	13	3
100N 250W P	19	2	8	.1	2	4
100N 225W	28	21	29	.3	6	3
100N 200W	13	42	3	.1	2	14
100N 175W	7	18	4	.1	2	1
100N 150W	16	4	5	.1	2	1
100N 125W	38	38	22	.1	9	2
100N 100W	27	10	7	.1	5	4
100N 075W P	49	14	53	.1	10	3
100N 050W	31	12	6	.1	2	2
100N 025W	43	19	35	.1	10	5
100N 000E	48	18	29	.1	9	1
100N 025E	33	20	44	.1	11	3
100N 050E	23	29	34	.1	13	2
100N 075E	49	56	22	.1	8	4
STD C/AU-S	61	42	132	6.9	40	51

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
100N 100E	5	29	9	.1	3	3
100N 125E	39	20	13	.2	10	1
100N 150E	23	3	6	.2	9	1
100N 175E	11	4	7	.2	7	1
100N 200E	21	12	12	.2	10	1
100N 225E	7	9	5	.1	7	1
100N 250E	2	5	2	.1	2	1
100N 275E	39	26	20	.1	9	4
50N 300W	17	9	19	.2	8	1
50N 275W	10	3	8	.1	10	1
50N 250W	5	6	5	.1	4	1
50N 225W	7	9	8	.2	4	1
50N 200W	21	21	20	.3	4	1
50N 175W	37	17	31	.4	9	1
50N 150W	50	40	39	.9	9	22
50N 125W	42	23	38	.2	11	3
50N 100W	20	9	14	.2	10	15
50N 075W	6	5	4	.1	2	1
50N 050W	12	2	2	.1	2	2
50N 025W	17	18	9	.2	7	1
50N 000E	34	13	26	.3	8	1
50N 025E	73	19	46	.4	5	4
50N 050E	44	14	45	.5	7	3
50N 075E	77	15	54	.2	12	6
50N 100E	85	44	39	.4	4	6
50N 125E	55	25	51	.2	11	4
50N 175E	18	47	17	.1	10	1
50N 200E	14	9	12	.1	10	1
50N 225E	34	30	33	.3	12	3
50N 250E	41	32	36	.1	11	2
50N 275E	22	19	20	.1	5	4
0N 300W	22	16	24	.5	7	2
0N 275W	7	8	5	.1	5	1
0N 250W	5	7	3	.1	3	1
0N 225W	5	11	1	.1	3	1
0N 200W	5	17	4	.1	3	1
STD C/AU-S	62	44	132	7.2	42	49

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
ON 175W	14	3	10	.1	2	5
ON 150W	25	6	30	.2	2	1
ON 125W	37	8	73	.8	10	1
ON 100W	22	34	31	.1	5	1
ON 075W	18	7	11	.1	5	1
ON 050W	19	2	15	.1	2	1
ON 025W	25	8	8	.1	2	1
ON 000E	72	20	41	.1	4	6
ON 025E	49	14	54	.1	9	3
ON 050E	45	23	50	.1	4	16
ON 075E	36	5	41	.1	9	1
ON 100E	55	25	36	.4	7	1
ON 125E	48	13	44	.1	5	2
ON 150E	44	10	39	.1	7	2
ON 175E	23	17	20	.1	8	2
ON 200E	21	15	15	.4	2	1
ON 225E	20	12	13	.1	6	1
50S 300W	7	4	9	.1	2	1
50S 275W	10	6	9	.1	3	1
50S 250W	22	2	21	.1	8	1
50S 225W	21	5	44	.3	7	1
50S 200W	23	2	49	.1	10	1
50S 175W	20	13	20	.3	2	1
50S 150W	17	5	18	.1	8	1
50S 125W	44	5	68	.1	2	1
50S 100W	86	21	56	.2	4	6
50S 075W	37	10	30	.1	4	2
50S 050W	37	8	20	.1	11	4
50S 025W	41	12	22	.1	9	2
50S 000E	40	20	45	.1	4	3
50S 025E	58	15	63	.1	14	3
50S 050E	51	6	57	.2	6	4
50S 075E	25	5	41	.2	10	1
50S 100E	67	19	62	.1	17	4
50S 125E	33	5	78	.1	7	1
50S 150E	22	16	32	.2	5	2
STD C/AU-S	62	40	133	7.2	44	48

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
50S 175E	52	15	45	.1	10	1
50S 200E	16	12	13	.1	6	1
50S 250E	26	14	6	.1	3	3
100S 300W	16	10	11	.4	9	1
100S 275W	26	18	26	.4	8	2
100S 250W	29	15	31	.6	3	1
100S 225W	29	18	33	.1	12	1
100S 200W	17	19	33	.3	7	2
100S 175W	18	20	24	.2	5	2
100S 150W	21	19	26	.1	8	1
100S 125W P	8	7	14	.2	2	3
100S 100W	30	24	30	.3	15	3
100S 075W	27	14	47	.2	12	1
100S 050W	24	18	43	.2	2	2
100S 025W	37	20	85	.1	8	1
100S 000E	16	20	66	.1	2	1
100S 025E	26	12	36	.1	9	1
100S 050E	34	15	36	.2	8	2
100S 075E	46	16	54	.1	12	1
100S 100E	45	8	57	.1	12	1
100S 125E	20	12	28	.2	10	3
100S 150E	18	9	25	.2	2	1
100S 175E	58	21	47	.2	11	2
100S 200E	53	19	52	.3	18	4
100S 225E	30	20	28	.1	9	1
100S 275E	53	20	21	.3	14	1
150S 300W	12	8	8	.1	13	1
150S 275W	23	13	14	.1	30	2
150S 250W	11	5	10	.1	10	1
150S 225W	38	14	19	.3	17	1
150S 200W	51	20	40	.3	14	8
150S 175W	57	11	47	.1	20	2
150S 150W	26	9	28	.1	16	1
150S 125W	33	17	28	.2	15	1
150S 100W	22	7	29	.3	12	1
150S 075W	23	26	53	.4	12	2
STD C/AU-S	63	41	133	7.0	42	48

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
150S 050W	40	12	54	.1	10	2
150S 025W	39	8	38	.1	23	1
150S 000E	20	11	37	.1	5	1
150S 025E	50	24	47	.1	4	5
150S 050E	47	18	47	.1	4	2
150S 075E	41	14	35	.2	12	3
150S 100E	24	14	34	.1	9	8
150S 125E	39	13	54	.1	9	2
150S 150E	25	2	31	.1	9	1
150S 175E	44	13	46	.2	8	2
150S 200E	50	13	47	.1	9	5
150S 225E	64	16	56	.1	4	7
150S 250E	42	11	22	.1	7	1
150S 275E	28	8	32	.2	4	1
150S 300E	27	6	36	.1	8	3
200S 300W	7	2	4	.1	2	1
200S 275W	8	2	4	.1	2	1
200S 250W	22	15	27	.1	5	1
200S 225W	7	2	5	.1	3	1
200S 200W	3	3	4	.1	2	1
200S 175W	16	4	11	.1	2	1
200S 150W	17	8	23	.1	6	18
200S 125W	30	11	30	.3	12	2
200S 100W	45	18	36	.3	12	5
200S 075W	35	12	34	.1	10	3
200S 050W	57	8	52	.1	17	7
200S 025W	57	10	44	.1	13	5
200S 025E	66	23	55	.1	10	6
200S 050E	42	17	41	.2	7	3
200S 075E	56	11	43	.2	7	5
200S 100E	34	9	37	.1	12	2
200S 125E	47	20	43	.1	13	5
200S 150E	38	14	35	.2	7	2
200S 175E	37	12	41	.1	8	3
200S 200E	39	10	36	.1	4	1
200S 225E	25	11	11	.1	7	2
STD C/AU-S	62	42	133	7.1	41	50

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
200S 250E	30	20	12	.1	3	2
200S 250E A	33	7	33	.2	3	1
200S 275E	36	21	26	.1	11	8
200S 300E	33	23	27	.1	11	7
250S 300W	24	13	12	.1	8	4
250S 275W	28	19	11	.1	8	2
250S 250W	42	8	22	1.1	2	5
250S 225W	5	3	1	.1	2	2
250S 200W	5	2	2	.1	2	1
250S 175W	15	2	5	.1	2	1
250S 150W	22	8	26	.4	7	2
250S 125W	45	11	30	.1	3	1
250S 100W	47	12	42	.1	4	5
250S 075W	41	15	42	.3	5	3
250S 025W	48	18	52	.1	8	5
250S 000E	44	11	44	.3	6	4
250S 025E	43	11	38	.2	8	2
250S 050E	53	14	57	.1	17	2
250S 075E	46	11	48	.1	13	6
250S 100E	37	18	42	.1	10	2
250S 125E	43	9	48	.2	9	3
250S 150E	47	14	48	.1	9	5
250S 175E	25	11	13	.1	3	1
250S 200E	28	20	13	.1	7	1
250S 225E	26	10	11	.1	7	33
250S 250E	33	35	27	.1	8	3
250S 275E	47	21	41	.1	10	5
250S 300E	21	8	30	.1	3	1
300S 300W	25	8	30	.3	6	1
300S 275W	19	5	31	.2	2	1
300S 250W	41	17	37	.1	4	3
300S 225W	38	13	35	.4	6	1
300S 200W	19	9	52	.1	2	1
300S 175W	37	15	40	.1	3	3
300S 150W	30	16	56	.4	5	2
300S 125W	40	11	31	.4	2	5
STD C/AU-S	61	40	133	6.8	41	47

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
300S 100W	53	8	46	.3	14	8
300S 075W	51	13	43	.2	7	5
300S 050W	50	7	46	.1	15	2
300S 050W A	46	8	46	.1	9	3
300S 025W	49	5	51	.2	15	4
300S 025E	51	8	50	.1	10	4
300S 050E	40	10	32	.2	10	6
300S 075E	43	12	40	.3	13	5
300S 100E	31	2	11	.1	5	2
300S 125E	28	2	9	.1	5	1
300S 150E	23	3	9	.1	4	1
300S 175E	28	10	9	.1	3	2
300S 200E	35	7	14	.2	8	2
300S 225E	32	22	15	.2	10	2
300S 250E	40	13	28	.2	13	5
300S 275E	36	9	31	.1	11	3
300S 300E	22	10	36	.1	15	4
STD C/AU-S	64	43	132	7.2	41	51

SAMPLE#	AU* ppb
B 41558	2
B 41559	1
B 41560	3
B 41561	1
B 41562	1
B 41563	1
B 41564	1
B 41565	2
B 41566	1
B 41567	1
B 41568	1
B 41569	1
B 41570	3
B 41571	1
B 41572	6
B 41573	2
B 41574	1
B 41575	6
B 41576	1
B 41577	4
B 41578	1
B 41579	1
B 41580	1
B 41581	1
B 41582	4
B 41583	16
B 41584	2
B 41585	2
B 41586	3
B 41587	3
B 41588	1
B 41589	2
B 41590	9
B 41591	35
B 41592	7

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716
DATE RECEIVED: FEB 15 1989
DATE REPORT MAILED: Feb. 22/1989.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-P2 SOIL P3 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY D. Toye. D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0334 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
300N 300W	38	5	13	.3	2	1
300N 275W	76	13	37	.2	4	3
300N 250W	38	10	16	.1	5	2
300N 225W	63	2	33	.2	2	3
300N 200W	25	16	32	.3	4	4
300N 175W	47	10	122	.2	2	2
300N 150W	88	22	242	.2	14	4
300N 125W	41	8	46	.2	8	2
300N 100W	37	13	36	.1	2	2
300N 75W	66	6	269	.3	2	3
300N 50W	30	10	35	.2	7	3
300N 25W	9	19	13	.1	3	2
300N 25E	8	5	10	.1	4	2
300N 50E	11	14	12	.1	6	1
300N 75E	13	10	13	.1	9	4
300N 150E	12	2	3	.1	2	1
300N 175E	14	2	9	.1	7	4
250N 300W	29	7	52	.1	5	2
250N 275W	49	5	37	.6	7	1
250N 250W	70	8	59	.3	3	2
250N 225W	32	3	23	.1	6	1
250N 200W	39	22	38	.1	2	1
250N 175W	14	5	17	.1	7	1
250N 150W	12	13	14	.1	9	1
250N 125W	19	9	17	.1	8	1
250N 100W	18	6	18	.1	11	1
250N 75W	46	7	32	.1	9	1
250N 50W	28	18	25	.2	9	1
250N 25W	32	14	23	.2	5	1
250N 00E	16	7	13	.2	6	1
250N 25E	16	12	17	.1	9	1
250N 50E	14	9	6	.1	51	1
250N 75E	7	12	1	.1	10	1
250N 100E	7	2	1	.1	2	1
250N 175E	17	7	4	.1	4	1
200N 300W	40	20	35	.1	9	5
STD C/AU-S	60	40	135	7.4	41	50

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
200N 275W	25	12	25	.1	4	3
200N 250W	48	23	46	.2	3	3
200N 225W	48	21	43	.2	14	1
200N 200W	50	14	131	.1	7	2
200N 175W	58	16	87	.1	14	1
200N 150W	18	4	22	.1	8	1
200N 125W	20	9	15	.2	8	1
200N 100W	52	13	34	.2	7	1
200N 75W	43	13	24	.1	12	1
200N 50W	30	17	35	.1	14	1
200N 25W	23	11	18	.1	7	1
200N 25E	14	8	13	.2	2	1
200N 50E	4	2	7	.1	2	1
200N 75E	2	4	4	.1	3	1
200N 100E	8	3	4	.2	2	1
200N 125E	7	12	3	.1	3	1
200N 150E	10	5	4	.1	9	1
200N 175E	18	9	6	.1	15	1
200N 200E	12	2	3	.1	2	1
200N 225E	12	2	4	.1	2	1
200N 250E	9	2	9	.1	4	1
200N 275E	10	2	3	.1	2	2
STD C/AU-S	62	42	132	7.1	41	52

SAMPLE#	AU* ppb
41593	5
41594	1
41595	1
41596	1
41597	1
41598	1
41599	1
41600	1
41601	1
41602	5
41603	25
41604	14
41605	1
41606	1
41607	1
41608	1
41609	1
41610	1
41611	1
41612	1
41613	1
41614	1
41615	1
41616	1
41617	8
41618	3
41619	2
41620	2

Soils - McIntosh M...

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: FEB 27 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: March 3/89

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 SOIL P2 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY. C. Leong . D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0440 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	AU* PPB
MM L1+00W 3+00N	11	19	13	.1	7	16
MM L1+00W 2+75N	5	9	11	.1	10	19
MM L1+00W 2+50N	4	17	7	.1	13	32
MM L1+00W 2+25N	8	4	6	.3	4	46
MM L1+00W 2+00N	1	8	5	.1	7	23
MM L1+00W 1+75N	6	2	16	.8	2	11
MM L1+00W 1+50N	3	2	9	.7	2	2
MM L1+00W 1+25N	1	2	1	.2	2	25
MM L1+00W 1+00N	2	9	3	.1	3	60
MM L1+00W 0+75N	3	8	9	1.0	3	26
MM L1+00W 0+50N	7	6	13	2.4	2	18
MM L1+00W 0+25N	3	2	20	.5	2	2
MM L1+00W 0+00	1	2	8	.1	2	7
MM L0+50W 0+00	4	3	2	.1	2	156
MM L0+50W 0+25S	1	2	1	.2	2	2
MM L0+50W 0+50S	1	6	2	.1	2	14
MM L0+50W 0+75S	6	2	2	.2	4	44
MM L0+50W 1+00S	1	2	3	.7	2	24
MM L0+50W 1+25S	21	295	21	.5	20	490
MM L0+50W 1+50S	19	21	6	.1	12	87
MM L0+50W 1+75S	24	21	4	.1	7	14
MM L0+50W 2+00S	18	15	5	.1	8	3
MM L0+50W 2+25S	6	13	3	.1	2	1
MM L0+50W 2+50S	11	2	1	.1	2	1
MM L0+00 0+00	5	2	4	.1	2	2
MM L0+00 0+25S	3	6	4	.3	5	52
MM L0+00 0+50S	37	4	3	.1	37	65
MM L0+00 0+75S	3	4	1	.1	2	2
MM L0+00 1+00S	4	2	5	.2	2	1
MM L0+00 1+25S	4	2	4	.2	2	2
MM L0+00 1+50S	1	3	4	.1	2	1
MM L0+00 1+75S	4	15	6	.1	4	3
MM L0+00 2+00S	10	15	9	.4	2	8
MM L0+00 2+25S	5	20	1	.1	8	21
MM L0+00 2+50S	3	2	1	.1	2	2

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM
D 32727	61	307	5	1[illegible]	.1	7	9	58	2.72	2	5	ND	1	2	1	2	2	7	.02	.004	2	3	.18	20	.01	2	.41	.01	.03	1
D 32736	69	231	2	9	.1	8	3	55	1.57	2	5	ND	1	5	1	2	2	7	.07	.005	2	7	.18	8	.01	2	.30	.01	.02	1
D 32743	322	6416	3	22	.2	3	16	38	3.82	2	5	ND	3	2	1	2	2	33	.01	.026	5	3	.11	15	.02	2	.80	.01	.10	1
D 32744	164	7291	8	46	.2	7	22	190	5.31	4	5	ND	1	1	1	2	2	18	.01	.011	2	3	.47	6	.01	2	1.39	.01	.03	1

SAMPLE#	AU* ppb
D 32727	63
D 32728	167
D 32729	34
D 32730	83
D 32731	183
D 32732	149
D 32733	19
D 32734	29
D 32735	2
D 32736	26
D 32737	100
D 32738	640
D 32739	910
D 32740	2540
D 32741	1440
D 32742	1060
D 32743	590
D 32744	1840
D 32745	33
D 32746	26
D 32747	8
D 32748	91
D 32749	63

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: DEC 12 1988
DATE REPORT MAILED: Dec. 13/88

ASSAY CERTIFICATE

- SAMPLE TYPE: Pulp AU** BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY.......... D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING PROJECT EXPO FILE # 88-5978R

SAMPLE#	AU** oz/t
34505	.003
34552	.004
34556	.035

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: DEC 9 1988
DATE REPORT MAILED: Dec. 13/88

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK AU** AND AG** BY FIRE ASSAY FROM 1 A.T.

SIGNED BY. C. Leong. D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT HARRINGTON FILE # 88-6214

SAMPLE#	Ag** OZ/T	Au** OZ/T
A	.01	.001
B	.01	.009
C	.08	.017
D	.01	.001

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock Chips AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 21 1988 DATE REPORT MAILED: Dec 23/88 . SIGNED BY. C. Leong ...D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO File # 88-6355 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	AU* PPB
C 33023	1	30	4	36	.1	3	11	442	4.59	2	5	ND	1	46	1	2	3	66	.32	.063	8	3	1.06	219	.01	2	2.70	.05	.06	1	1
C 33024	1	40	6	41	.1	7	10	588	3.54	16	5	ND	1	51	1	2	2	97	2.27	.045	5	11	.84	31	.11	2	4.35	.02	.08	1	2
C 33025	1	66	5	76	.1	2	11	1262	10.63	11	5	ND	1	565	2	2	2	157	1.28	.100	5	2	.95	78	.29	7	3.26	.07	.09	1	1
C 33026	1	32	17	39	.1	2	9	342	5.03	19	5	ND	1	92	2	2	2	104	4.34	.049	4	8	.64	14	.13	3	6.74	.02	.09	1	1
C 33027	1	27	15	43	.1	6	10	550	3.11	22	5	ND	1	126	1	2	3	119	4.95	.044	8	12	.77	26	.09	5	7.00	.02	.10	3	1
C 33028	1	27	5	58	.1	2	13	816	4.05	25	5	ND	1	72	1	2	2	92	2.84	.046	8	9	1.07	11	.10	5	4.61	.02	.05	1	1
C 33029	1	13	9	25	.1	3	5	352	1.61	3	5	ND	1	120	1	4	2	36	5.78	.038	5	4	.23	34	.05	4	7.05	.02	.12	1	1
C 33030	1	288	9	51	.5	4	13	684	3.59	30	5	ND	1	54	1	2	2	34	3.30	.050	5	8	1.19	8	.09	3	3.43	.01	.07	1	26
C 33031	1	28	7	58	.1	3	10	898	3.74	3	5	ND	1	33	1	2	2	79	1.40	.050	3	7	.99	72	.03	5	3.32	.06	.11	1	1
C 33032	1	10	38	38	.1	3	7	471	2.15	6	5	ND	1	74	1	4	3	41	3.90	.030	4	6	.50	45	.01	4	5.43	.03	.11	1	2
C 33033	1	42	29	62	.1	10	10	700	3.41	4	5	ND	1	96	1	2	2	53	2.43	.065	3	11	1.11	155	.10	3	4.77	.02	.12	1	1
C 33034	1	29	15	80	.1	7	13	1044	4.47	23	5	ND	1	59	2	2	2	87	1.72	.045	3	6	1.11	48	.05	3	4.49	.04	.09	1	1
C 33035	72	856	13	37	.3	5	5	58	9.90	3	5	ND	2	3	1	2	2	65	.03	.047	2	6	.43	27	.02	5	1.36	.01	.19	1	320
C 33036	5	403	5	23	.1	5	12	66	2.91	2	5	ND	1	290	1	4	2	61	.82	.089	2	3	.95	115	.02	2	2.37	.09	.07	1	12
C 33037	5	254	8	33	.3	8	11	149	4.66	2	5	ND	1	92	1	2	2	51	3.21	.058	3	8	.97	13	.05	2	5.51	.01	.11	1	41
B 41503	10	83	6	23	.2	26	26	206	5.55	41	5	ND	1	7	1	3	3	18	.10	.018	2	14	.49	15	.04	2	.71	.01	.01	1	73
B 41504	27	575	17	39	.1	13	17	77	13.74	101	5	ND	2	7	1	3	3	38	.04	.010	2	4	.10	9	.01	4	.54	.01	.01	2	65
B 41505	609	88	53	7	.1	6	1	16	2.76	622	5	ND	1	3	1	18	2	15	.03	.005	2	6	.01	2	.01	3	.15	.01	.01	1	88
B 41506	1	15	6	11	.3	3	3	316	1.68	17	6	ND	1	143	1	2	2	2	39.71	.050	2	1	.03	1	.01	2	.08	.01	.01	1	1
B 41507	1	8	2	3	.3	3	3	221	.53	9	7	ND	1	258	1	2	2	1	42.15	.012	2	2	.06	27	.01	2	.23	.02	.01	1	1
B 41508	5	232	11	29	.1	2	5	137	5.16	3	5	ND	17	21	1	2	2	108	.52	.033	4	7	.67	189	.16	2	2.49	.03	.10	1	10
B 41509	386	666	4	14	.1	2	8	15	14.24	12	5	ND	6	3	1	2	2	51	.01	.051	2	1	.01	540	.10	2	.31	.01	.09	1	75
B 41510	166	1947	13	30	.2	7	13	4	35.51	35	5	ND	5	5	2	2	2	68	.41	.059	2	1	.01	18	.01	2	.43	.01	.09	3	28
B 42511	5	364	11	72	.1	6	11	459	3.77	8	5	ND	4	37	1	2	2	69	.42	.038	6	5	1.58	43	.11	5	2.42	.03	.13	1	17
B 41512	3	367	13	49	.1	8	9	352	3.49	6	5	ND	5	11	1	2	2	78	.20	.054	7	6	1.71	39	.11	3	2.70	.03	.12	1	19
B 41513	140	138	2	3	.2	4	1	18	1.77	19	5	ND	1	2	1	2	2	11	.01	.015	2	5	.02	7	.01	2	.11	.01	.04	1	32
B 41514	121	238	2	3	.2	6	1	10	3.28	17	5	ND	2	7	1	2	2	16	.01	.021	2	4	.01	23	.01	2	.34	.02	.09	1	141
B 41515	83	194	2	14	.2	7	7	92	1.84	2	5	ND	1	1	1	2	2	10	.01	.005	2	6	.42	13	.01	4	.81	.01	.08	1	43
B 41516	207	218	4	1	.2	4	1	12	1.76	2	5	ND	2	2	1	2	2	7	.01	.004	3	4	.01	11	.01	2	.20	.01	.07	1	200
B 41517	175	45	2	1	.1	4	1	12	.75	3	5	ND	5	1	1	2	2	3	.01	.013	6	6	.01	4	.01	2	.19	.01	.06	1	55
B 41518	8	471	7	34	.2	8	23	256	5.15	11	6	ND	5	14	1	2	2	78	.28	.037	5	6	1.63	29	.11	4	2.26	.05	.15	1	36
B 41519	160	4911	5	11	.5	6	24	25	3.37	4	7	ND	4	2	1	2	2	19	.02	.024	5	2	.05	20	.01	3	.67	.01	.10	1	550
B 41520	89	1900	2	23	.3	6	11	51	5.45	2	5	ND	4	2	1	2	3	38	.02	.025	6	2	.12	27	.02	2	.83	.01	.15	1	290
B 41521	92	7177	5	34	.6	7	15	90	7.51	5	5	2	4	1	1	3	20	20	.01	.012	2	4	.24	11	.01	5	1.07	.01	.07	1	1060
B 41522	192	1003	2	20	.7	5	8	49	5.85	4	6	2	4	2	1	2	2	20	.01	.008	6	2	.13	16	.01	2	.65	.01	.12	1	1140
B 41523	63	3150	3	40	.4	8	16	76	8.13	2	5	ND	3	2	1	2	2	19	.01	.005	2	2	.18	16	.01	3	.75	.01	.12	1	820
STD C/AU-R	18	59	43	132	7.1	66	30	1048	4.25	43	21	8	40	49	20	16	25	61	.49	.098	41	55	.89	180	.07	38	1.95	.06	.14	11	480

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	
B 41524	50	407	2	5	.1	4	9	17	3.43	2	5	ND	1	1	1	2	4	4	.01	.001	2	5	.01	4	.01	2	.15	.01	.08	1	146	3-6
B 41525	211	1862	2	2	.1	2	5	27	2.51	2	5	ND	1	2	1	2	4	6	.01	.004	2	5	.07	7	.01	2	.34	.01	.09	1	230	
B 41526	68	110	2	2	.1	4	2	19	1.23	3	5	ND	1	2	1	2	2	3	.01	.005	2	9	.03	5	.01	4	.17	.01	.05	1	31	
B 41527	32	3399	11	43	.1	51	14	229	3.98	12	5	ND	1	35	1	2	3	79	.49	.043	4	48	1.97	21	.04	2	3.72	.08	.02	1	29	
B 41528	2	237	42	996	22.3	3	58	1330	2.98	28	5	ND	1	73	8	2	23	41	4.10	.053	2	4	.95	1	.07	3	1.22	.01	.01	1	53	
B 41529	3	144	9	43	.5	49	21	422	2.80	16	5	ND	1	135	1	2	2	57	4.06	.052	3	85	1.33	48	.09	2	5.26	.04	.05	3	5	
B 41530	2	27	3	105	1.0	5	5	816	.87	3	5	ND	2	50	1	2	2	16	12.98	.029	4	9	.42	17	.04	2	.85	.02	.02	1	3	
B 41531	3	39	17	265	1.2	1	8	38	10.34	11	8	ND	2	7	3	2	4	51	.11	.196	2	6	.04	35	.15	2	.59	.01	.17	1	40	
B 41532	2	68	18	315	6.0	14	32	221	8.77	22	5	ND	1	4	3	2	3	32	.15	.041	2	6	.31	20	.18	2	.80	.01	.14	1	330	
STD C/AU-R	19	63	40	134	7.4	72	31	1059	3.99	43	21	8	39	51	19	18	24	60	.51	.092	40	59	.94	179	.07	38	1.95	.06	.14	13	470	

ACME ANALYTICAL LABORATORIES LTD.   852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6   PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK   AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 2 1988 DATE REPORT MAILED: Dec 7/88 SIGNED BY. C. Leong ..D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT MORAGA RES.-EXPO   File # 88-6115

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
C 34515	3	24	12	6	.1	5	3	5	3.47	12	5	ND	1	23	1	2	2	20	.02	.017	2	8	.02	73	.01	2	.39	.01	.01	1	3
C 34516	1	29	6	13	.1	4	6	120	7.08	13	5	ND	1	14	1	2	2	74	.01	.138	3	7	.39	126	.01	2	1.95	.01	.07	1	1
C 34517	1	66	13	28	.1	11	22	187	7.44	9	5	ND	1	5	1	2	2	46	.03	.061	4	9	.59	13	.01	2	1.56	.01	.04	1	1
C 34518	2	84	15	93	.1	11	19	394	5.23	13	5	ND	1	18	1	2	2	23	.68	.050	7	4	.51	30	.01	3	1.24	.01	.06	1	1
C 34519	4	115	17	33	.1	13	19	38	6.37	13	5	ND	2	2	1	2	2	18	.02	.004	2	6	.10	16	.01	2	.70	.01	.02	1	1
C 34520	2	22	6	5	.1	1	3	71	3.81	19	5	ND	1	156	1	2	2	19	.02	.052	21	2	.19	133	.01	2	1.19	.01	.11	1	2
C 34521	1	53	8	25	.1	27	19	162	6.07	8	5	ND	1	5	1	2	2	18	.05	.031	8	12	.28	21	.01	2	.98	.01	.09	2	1
C 34522	1	13	4	3	.1	1	2	18	.29	2	5	ND	1	25	1	2	2	3	.02	.004	2	2	.02	420	.01	2	.47	.01	.01	1	1
C 34523	1	47	7	57	.1	7	9	556	6.22	8	5	ND	1	20	1	2	2	110	.24	.052	11	19	1.05	61	.05	2	2.45	.04	.05	1	16
C 34524	1	69	14	77	.1	13	13	797	6.15	9	5	ND	1	27	1	2	2	147	.30	.056	12	25	1.72	101	.02	2	3.89	.05	.04	1	1
C 34525	5	53	7	53	.1	16	17	460	5.99	4	5	ND	1	30	1	2	2	122	.46	.040	8	20	1.10	24	.08	3	1.97	.05	.07	1	1
C 34526	5	41	9	9	.1	8	7	13	2.80	77	5	ND	1	5	1	2	2	3	.01	.001	2	4	.01	41	.01	2	.32	.01	.01	2	1
C 34527	3	10	3	2	.1	2	1	12	1.42	23	5	ND	1	11	1	2	2	13	.03	.004	2	3	.02	173	.01	2	.32	.01	.01	1	1
C 34528	1	54	10	73	.1	4	15	1578	4.79	10	5	ND	1	38	1	2	2	61	6.47	.050	13	9	.50	60	.01	2	2.09	.01	.08	1	4
C 34529	6	8	2	1	.1	11	2	28	.83	12	5	ND	1	4	1	7	3	1	.04	.002	2	10	.01	14	.01	3	.02	.01	.01	2	1
C 34530	1	30	60	27	.7	3	1	411	.22	2	5	ND	1	3	1	2	2	2	.12	.020	2	20	.06	1	.01	2	.21	.01	.01	2	55
C 34531	4	156	14	19	.1	1	9	2	17.43	5	5	ND	1	7	1	2	2	91	.01	.061	2	3	.01	270	.01	2	.32	.01	.01	1	1
C 34532	1	70	26	109	.2	5	19	1012	6.09	26	5	ND	1	26	1	2	2	66	.63	.060	4	6	2.14	29	.08	2	2.18	.01	.12	1	2
C 34533	1	116	26	139	.2	12	15	1060	6.10	20	5	ND	1	55	1	2	2	70	1.05	.056	2	24	2.31	45	.14	2	3.46	.01	.05	1	9
C 34534	1	24	8	55	.1	3	13	700	4.85	5	5	ND	1	270	1	2	2	61	.78	.070	2	5	2.04	62	.06	2	2.93	.03	.09	1	1
C 34535	2	55	22	9	.1	3	8	14	5.33	6	5	ND	1	18	1	2	2	10	.02	.005	2	2	.03	26	.01	2	.20	.01	.01	1	15
C 34536	1	38	9	88	.1	5	11	1193	4.33	5	5	ND	1	43	1	2	2	78	.40	.073	4	8	1.96	56	.14	3	2.69	.05	.02	1	1
C 34537	4	26	8	5	.1	26	21	6	5.80	2	5	ND	2	16	1	2	2	6	.01	.003	2	3	.02	20	.01	2	.86	.01	.04	1	1
C 34538	1	5	2	3	.1	1	1	128	.10	5	6	ND	1	323	1	2	2	3	37.54	.008	2	1	.05	8	.01	3	.14	.01	.01	2	1
C 34539	1	29	6	40	.1	7	8	350	2.89	2	5	ND	1	58	1	2	2	54	1.66	.034	5	11	.61	11	.06	2	2.75	.01	.05	1	1
C 34540	1	16	8	24	.1	1	2	210	1.94	8	5	ND	2	40	1	2	2	22	1.04	.022	3	3	.37	13	.05	2	1.94	.01	.03	1	2
C 34541	1	49	8	174	.1	23	32	463	5.37	6	5	ND	1	160	2	2	2	117	3.30	.071	4	18	.71	14	.07	3	5.36	.07	.07	1	1
STD C/AU-R	17	60	38	132	6.6	67	31	1028	4.18	40	21	7	37	47	18	18	21	58	.48	.092	39	57	.91	173	.06	34	1.98	.06	.13	11	510

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 23 1988 DATE REPORT MAILED: Nov 29/88 SIGNED BY. C. Leong ..D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO File # 88-5978

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
C 34501	82	61	8	5	.1	1	1	17	1.75	87	5	ND	1	7	1	2	2	2	.01	.007	2	7	.01	1	.01	2	.04	.01	.01	3	56
C 34502	17	18	8	5	.1	8	1	18	.58	2	5	ND	1	9	1	2	2	2	.01	.008	2	7	.01	1	.01	3	.04	.01	.01	1	61
C 34503	25	36	3	5	.1	3	1	33	.81	41	5	ND	1	3	1	2	4	3	.01	.003	2	8	.01	1	.01	3	.03	.01	.01	4	2
C 34504	18	20	5	4	.1	4	1	18	.44	17	5	ND	1	5	1	2	2	1	.01	.003	2	7	.01	1	.01	2	.02	.01	.01	1	19
C 34505	70	88	6	4	.1	1	1	11	1.99	198	5	ND	1	5	1	3	2	15	.01	.003	2	8	.01	1	.01	3	.11	.01	.01	2	113
C 34506	28	12	2	1	.1	1	1	36	.18	3	5	ND	1	1	1	2	2	1	.01	.001	2	2	.01	1	.01	2	.10	.01	.01	1	26
C 34507	4	81	12	5	.1	8	16	5	6.23	2	5	ND	1	11	1	2	2	12	.01	.003	2	2	.01	10	.01	6	.33	.01	.01	1	17
C 34508	2	45	21	30	.1	1	12	429	5.88	10	5	ND	2	3	1	2	2	22	.01	.086	5	1	.90	22	.01	7	2.06	.01	.10	1	2
C 34509	1	74	6	44	.1	8	14	475	6.38	7	5	ND	2	28	1	2	2	57	.97	.061	6	10	.92	18	.21	7	2.40	.02	.11	1	11
C 34510	4	68	2	49	.1	5	13	96	4.35	6	5	ND	2	13	1	2	2	14	.17	.064	11	3	.32	26	.01	5	1.47	.01	.10	1	1
C 34511	1	51	13	17	.1	1	6	77	4.54	4	5	ND	1	33	1	2	2	12	.54	.047	8	1	.14	72	.01	3	1.07	.01	.09	1	5
C 34512	1	91	3	56	.1	10	24	79	4.76	4	5	ND	2	22	1	2	2	18	.40	.051	16	1	.59	16	.01	3	1.71	.01	.09	1	1
C 34513	4	82	10	48	.1	7	16	61	5.18	19	5	ND	2	10	1	2	2	25	.35	.064	18	2	.48	10	.01	4	1.77	.01	.10	1	2
C 34514	16	86	4	36	.1	8	22	350	6.69	3	5	ND	3	2	1	2	2	25	.02	.086	4	4	.71	8	.01	2	1.70	.01	.08	1	1
C 34551	38	29	5	2	.2	1	1	12	.86	3	5	ND	2	10	1	2	2	3	.01	.006	2	2	.01	9	.01	2	.09	.01	.01	1	19
C 34552	148	479	5	16	.1	1	9	3	16.52	352	5	ND	4	2	1	2	2	49	.01	.011	2	4	.01	4	.01	3	.29	.01	.01	1	109
C 34553	90	26	5	4	.1	1	2	6	3.13	2	5	ND	3	3	1	2	2	9	.01	.005	2	2	.01	1	.01	2	.19	.01	.02	1	85
C 34554	10	51	2	4	.1	1	1	4	2.28	31	5	ND	3	5	1	2	2	16	.01	.003	2	2	.01	2	.01	2	.21	.01	.01	1	7
C 34555	5	14	2	1	.3	1	1	2	.22	2	5	ND	3	7	1	2	2	5	.01	.002	2	1	.01	1	.01	2	.20	.01	.01	1	46
C 34556	205	435	24	9	.1	2	5	7	7.56	529	5	ND	4	6	1	2	3	31	.01	.007	2	6	.01	1	.01	8	.18	.01	.01	2	1205
STD C/AU-R	19	62	40	132	6.7	70	31	1048	4.05	42	23	8	41	49	19	16	20	61	.47	.095	42	57	.93	176	.07	41	1.99	.06	.16	13	520

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 11 1988 DATE REPORT MAILED: Dec 15/88 SIGNED BY. . . . . .D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO File # 88-6230

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
C 33001	1	133	15	92	.1	13	14	327	5.44	2	5	ND	1	63	1	2	2	166	.69	.057	10	18	1.88	104	.25	2	4.22	.07	.03	1	2
C 33002	3	52	11	7	.1	2	4	59	2.69	4	5	ND	2	11	1	2	2	21	.04	.032	11	4	.08	118	.06	5	1.04	.01	.15	1	19
C 33003	22	112	2	11	.1	1	4	28	6.49	98	5	ND	1	7	1	2	6	10	.02	.003	2	7	.04	445	.01	2	.17	.01	.01	3	8
C 33004	4	94	26	5	.2	1	4	9	4.69	14	5	ND	1	18	1	2	18	11	.14	.004	2	2	.01	10	.01	2	.29	.01	.04	1	2
C 33005	6	42	17	7	.5	3	11	9	5.00	10	5	ND	1	2	1	2	2	10	.01	.001	2	5	.01	12	.01	2	.29	.01	.01	1	1
C 33006	21	59	9	12	.1	4	6	12	8.87	13	5	ND	1	10	1	2	2	87	.01	.021	2	9	.04	92	.01	2	.30	.01	.01	2	1
C 33007	3	72	27	7	.1	3	8	2	8.00	25	5	ND	2	37	1	4	6	83	.01	.089	2	7	.01	185	.01	2	.56	.01	.05	1	3
C 33008	2	77	5	51	.1	8	8	449	3.74	11	5	ND	1	69	1	2	2	60	1.14	.036	3	10	1.21	68	.05	2	3.03	.03	.11	1	12
C 33009	1	59	38	114	.5	14	10	713	6.15	24	5	ND	1	86	1	3	2	65	1.74	.067	2	23	2.36	24	.21	3	5.21	.03	.06	5	18
C 33010	1	80	25	92	.3	94	44	1071	4.84	12	5	ND	1	69	2	2	2	98	.36	.051	4	65	2.36	104	.25	2	5.42	.04	.02	1	1
C 33011	3	27	13	30	.3	7	10	363	2.85	8	5	ND	1	52	1	3	2	30	1.44	.029	3	5	.79	29	.05	2	2.99	.01	.09	2	2
C 33012	1	18	4	21	.1	4	5	233	1.85	3	5	ND	6	33	1	2	2	31	.90	.025	6	4	.42	25	.05	2	1.44	.02	.07	1	1
C 33013	9	19	115	305	.9	1	7	394	1.91	19	5	ND	1	39	2	2	5	11	1.84	.042	6	3	.29	67	.05	2	2.01	.01	.13	1	6
C 33014	24	26	8	47	.6	8	14	388	4.28	46	5	ND	1	10	1	2	2	38	.39	.076	6	4	.38	26	.04	3	.93	.02	.11	1	10
C 33015	3	31	13	13	.3	3	3	36	2.64	3	5	ND	1	5	1	2	2	4	.05	.002	2	4	.03	192	.01	3	.36	.01	.01	1	1
C 33016	6	12	15	4	.1	3	1	20	.65	2	5	ND	1	4	1	2	2	3	.02	.005	2	5	.01	66	.01	2	.25	.01	.01	1	1
C 33017	1	30	12	51	.1	5	11	802	4.08	66	5	ND	2	92	1	2	2	72	4.75	.072	7	4	1.68	28	.11	6	4.21	.03	.08	2	5
C 33018	1	9	6	1	.1	1	1	24	.21	3	5	ND	1	12	1	2	2	3	.11	.002	2	2	.03	8	.01	3	.64	.01	.01	1	1
C 33019	2	47	10	60	.3	9	14	1246	4.50	3	5	ND	1	71	1	2	2	93	3.54	.055	7	4	.97	61	.18	2	2.59	.05	.06	1	6
C 33020	1	28	6	29	.1	1	8	446	7.81	7	5	ND	2	4	1	2	2	98	.10	.064	2	2	.55	44	.28	2	1.44	.02	.10	1	1
C 33021	1	40	11	67	.1	5	25	1053	5.84	2	5	ND	1	90	1	2	2	201	1.84	.071	11	7	1.80	107	.24	4	4.04	.10	.04	1	1
C 33022	3	51	10	68	.1	15	17	578	5.67	7	5	ND	2	66	1	3	2	99	3.49	.061	10	22	2.58	10	.01	2	3.44	.02	.05	1	1
C 34542	1	41	11	54	.1	39	12	373	6.17	18	5	ND	2	4	1	2	2	96	.06	.017	4	67	.81	72	.01	2	2.14	.01	.09	1	2
C 34543	8	34	2	7	.2	12	11	15	7.14	13	5	ND	1	2	1	2	2	32	.01	.001	2	23	.01	25	.01	2	.59	.01	.01	1	4
C 34544	3	42	9	47	.1	5	10	634	4.85	2	5	ND	1	5	1	2	2	43	.28	.078	8	12	1.01	56	.16	2	1.51	.01	.12	1	2
C 34545	2	60	10	40	.1	19	13	415	5.38	6	5	ND	2	24	1	2	2	104	.38	.055	7	39	.94	127	.19	4	2.38	.02	.06	1	1
C 34546	80	1509	2	11	.1	6	17	26	4.43	7	5	ND	1	1	1	2	2	9	.01	.001	2	8	.04	10	.01	3	.50	.01	.05	1	290
C 34547	44	1374	8	23	.1	2	11	7	26.54	17	5	ND	7	1	3	2	2	134	.01	.071	2	6	.01	50	.02	2	.47	.01	.06	1	45
C 34548	8	595	9	34	.1	3	10	157	19.88	31	5	ND	4	11	2	2	2	128	.05	.097	2	12	.31	41	.18	2	1.25	.02	.05	2	13
C 34549	117	581	2	4	.3	5	5	17	3.27	8	5	ND	1	6	1	2	2	12	.01	.006	2	4	.02	58	.01	3	.32	.01	.05	1	440
C 34550	15	157	6	40	.1	4	11	442	6.45	4	5	ND	1	65	2	2	2	94	.23	.035	4	9	.88	152	.16	2	2.46	.03	.04	1	22
B 41501	164	127	13	3	.1	3	3	23	2.28	8	5	ND	9	47	1	2	2	8	.01	.029	4	7	.09	83	.01	5	.46	.01	.10	1	63
B 41502	78	403	2	4	.1	5	2	18	1.31	2	5	ND	1	2	1	2	2	5	.01	.004	2	36	.02	8	.01	5	.15	.01	.04	1	192
STD C/AU-R	19	63	37	132	6.7	70	31	1040	4.14	42	18	8	38	48	19	16	22	61	.50	.094	40	55	.98	175	.07	32	2.05	.06	.13	12	510

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: JAN 16 1989
DATE REPORT MAILED: Jan. 19/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

- SAMPLE TYPE: ROCK
AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY.......... D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 89-0098

SAMPLE#	AU* ppb
B 41551	3
B 41552	1
B 41553	2
B 41554	45
B 41555	1
B 41556	2
B 41557	5

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE RECEIVED: NOV 22 1988
DATE REPORT MAILED: Dec. 1/88.

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.
ANALYSIS BY HYDRIDE ICP. Ge PARTIAL LEACHED.
- SAMPLE TYPE: SOIL PULP AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. OR LESS (SMALL SAMPLES)

SIGNED BY........ D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT EXPO FILE # 88-5985 Page 1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L395E 207S	2.6	.2	1.2	.2	1.9	.7	115
L395E 209S	.6	.1	.2	.2	.2	.3	35
L395E 213S	.2	.1	.1	.2	.2	.3	1
L395E 314S	4.7	.3	.6	.2	2.9	.6	1
L410E 180S	8.0	.3	1.0	.2	2.8	.4	1
L410E 182S	14.0	.4	1.1	.2	4.2	.7	1
L410E 184S	8.4	.3	1.3	.3	3.2	1.1	1
L410E 186S	4.7	.4	1.1	.2	2.0	.3	1
L410E 188S	14.5	.3	.5	.2	2.9	.4	4
L410E 190S	3.5	.3	1.7	.2	2.0	.6	1
L410E 192S	3.8	.4	.2	.2	.5	.6	1
L410E 194S	4.9	.6	.9	.2	1.8	.7	10
L410E 196S	6.9	.5	45.7	.3	1.8	1.8	1
L410E 198S	3.1	.3	.1	.2	1.8	.3	1
L410E 200S	1.3	.4	.3	.2	.5	.7	6
L410E 202S	1.4	.4	.3	.2	1.2	.6	1
L410E 204S	3.0	.3	4.0	.2	3.9	.6	1
L410E 206S	5.4	.2	1.2	.2	2.6	.4	44
L425E 300S	6.8	.3	.7	.2	5.5	.9	8
L425E 302S	9.3	.2	.3	.2	2.6	.5	1
L425E 304S	2.4	.4	.5	.2	1.2	1.0	1
L430E 214S	6.0	.2	2.8	.2	3.9	1.8	7
L430E 216S	5.7	.8	1.0	.2	1.2	.9	1
L430E 218S	.7	.1	.5	.2	1.2	.3	1
L430E 234S	6.7	.6	.6	.2	.5	.3	6
L430E 236S	8.8	1.7	2.6	.2	7.3	3.0	16
L430E 238S	3.9	.5	.9	.2	2.8	.7	1
L430E 240S	19.0	.7	1.8	.2	14.1	1.7	12
L430E 242S	19.7	.9	1.8	.2	13.4	1.6	19
L430E 244S	22.9	1.0	2.4	.2	9.5	2.1	35
L430E 246S	30.5	1.3	3.2	.2	19.2	2.0	57
L430E 248S	32.9	1.2	4.4	.2	19.7	2.0	40
L430E 250S	14.5	.4	1.6	.4	1.0	.8	32
L430E 252S	12.0	.5	.9	.2	15.0	1.1	39

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SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L430E 254S	3.0	.4	.5	.2	2.5	.7	11
L430E 256S	19.3	1.3	.8	.2	2.0	.6	184
L430E 258S	12.3	.5	1.8	.2	4.0	.4	40
L430E 260S	11.6	.3	1.7	.2	9.0	.5	31
L430E 262S	7.5	.5	.8	.2	4.8	.8	1
L430E 264S	3.8	.1	1.1	.2	3.0	.5	30
L430E 266S	.4	.1	.1	.2	.2	.3	1
L430E 268S	1.7	.1	.2	.2	1.3	.3	1
L430E 270S	.8	.1	.3	.2	.3	.3	1
L430E 272S	1.5	.1	.2	.2	1.5	.6	1
L430E 274S	2.8	.1	.4	.2	3.4	.7	1
L430E 276S	6.0	.5	.6	.2	5.4	.3	1
L430E 278S	2.7	.2	.4	.2	2.0	.5	1
L430E 280S	6.3	.2	1.5	.2	6.2	.3	1
L430E 286S A	8.7	.3	.6	.3	9.6	1.1	1
L430E 318S	6.9	.1	.4	.3	4.6	.5	1
L430E 320S	2.8	.2	.4	.2	1.3	.3	1
L430E 322S	1.6	.2	.1	.2	.3	.3	1
L430E 324S	4.2	.3	.3	.4	.7	.3	4
L430E 326S	3.4	.1	.1	.2	.9	.5	1
L430E 328S	1.9	.1	.2	.2	.2	.3	1
L430E 330S	5.3	.1	.5	.5	1.7	.5	1
L435E 180S	3.9	.1	1.3	.2	.7	.3	18
L435E 182S	5.6	.3	1.0	.2	4.2	.3	1
L435E 184S	6.6	.2	.8	.2	2.5	.3	1
L435E 186S	5.4	.3	.9	.4	1.8	.9	1
L435E 188S	12.0	.4	1.4	.2	4.1	1.1	12
L435E 190S	7.6	.2	1.2	.2	2.6	.3	1
L435E 192S	8.5	.3	2.0	.2	2.9	1.0	17
L435E 194S	5.4	.1	2.1	.4	2.2	1.2	10
L435E 196S	9.2	.4	1.4	.2	1.5	.7	4
L435E 198S	6.1	.1	1.3	.2	1.5	1.1	15
L435E 200S	6.0	.1	1.4	.4	1.4	.6	1
L435E 202S	4.0	.1	.4	.2	1.1	.6	1
L435E 204S	6.2	.8	.8	.6	1.5	.5	1
L435E 206S	4.3	.1	1.7	.2	3.5	.7	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L435E 208S	5.7	.4	3.2	.3	2.9	.9	8
L435E 212S	4.8	.5	4.5	.4	1.2	1.1	1
L435E 214S	4.4	.2	2.0	.3	2.8	.6	1
L435E 216S	4.3	.1	1.5	.2	5.0	.5	1
L435E 220S	28.7	.4	.9	.2	3.6	.6	1
L435E 222S	16.6	.5	1.3	.4	7.2	.7	2
L435E 222S A	15.7	.3	1.1	.4	8.1	.8	1
L435E 224S	6.1	.2	1.2	.3	.9	.3	1
L435E 226S	8.8	.1	.3	.2	.4	.3	2
L435E 228S	119.3	1.4	.9	.5	4.7	1.2	37
L435E 230S	21.4	.7	1.3	.4	13.1	1.0	140
L435E 232S	3.3	.1	.1	.2	.3	.3	1
L435E 234S	6.7	.4	.7	.2	1.4	.8	47
L435E 236S	2.3	.3	.1	2.1	.4	.3	1
L435E 238S	.9	.1	.3	.2	.4	.3	1
L435E 240S	3.5	.4	.5	.4	1.4	.8	7
L435E 242S	10.5	.4	.7	.2	8.2	.8	11
L435E 244S	4.9	.1	.6	.2	1.2	.5	13
L435E 246S	19.6	.6	2.0	.2	15.1	2.1	21
L435E 248S	16.5	.5	2.1	.2	2.1	.8	2
L435E 250S	22.6	1.0	1.2	.2	3.2	.8	219
L435E 252S	11.8	.4	1.9	.2	2.7	.9	51
L435E 254S	9.2	.4	.8	.2	2.6	.6	1
L435E 256S	9.7	.5	.7	.2	7.2	1.1	8
L435E 258S	17.4	.4	.6	.2	2.2	.7	14
L435E 260S	22.5	.1	2.7	.2	15.7	1.1	470
L435E 262S	12.8	.2	1.6	.2	9.0	.7	60
L435E 266S	7.2	.3	1.7	.2	7.3	.5	62
L435E 268S	11.5	.5	.3	.5	29.3	1.0	1
L435E 270S	4.0	.2	.8	.2	8.1	.7	1
L435E 272S A	1.7	.2	.1	.4	.2	.3	1
L435E 272S B	.7	.2	.1	.2	.3	.3	1
L435E 274S	3.7	.1	.3	.2	2.1	.6	1
L435E 276S	.6	.1	.1	.3	.2	.3	10
L435E 278S	1.1	.1	.1	.2	1.3	.4	1
L435E 280S	2.4	.3	.2	.2	9.7	.7	15

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L435E 282S	4.4	.3	.5	.5	4.8	1.0	1
L435E 284S	1.6	.1	.1	.2	.3	.3	1
L435E 286S	1.8	.3	.3	.4	.8	.4	12
L435E 286S A	5.0	.5	.7	.2	4.3	.8	3
L435E 288S	9.1	.2	.1	.2	9.5	2.0	5
L435E 290S	11.2	.2	.4	.2	6.3	2.8	1
L435E 292S	9.7	.4	.5	.2	15.2	1.7	7
L435E 302S	6.5	.2	.4	.2	11.2	1.2	1
L435E 304S	8.3	.4	.6	.4	6.0	1.3	8
L435E 306S	9.8	.3	.1	.2	6.3	1.2	42
L435E 308S	7.7	.3	.1	.2	6.0	.9	6
L435E 310S	11.3	.4	.3	.4	7.0	1.1	23
L435E 312S	3.4	.5	.5	.2	1.6	.3	2
L435E 314S	7.0	.5	.1	.2	4.2	.8	16
L435E 316S	4.9	.4	1.0	.2	2.8	1.0	1
L435E 318S	8.9	.4	.3	.2	5.6	.8	5
L435E 320S	10.4	.4	.2	.2	1.2	.4	1
L435E 322S	4.1	.2	.3	.3	1.7	.4	8
L435E 324S	4.9	.3	.5	.3	2.0	.3	1
L435E 326S	5.9	.4	.4	.3	3.3	.5	4
L435E 328S	3.7	.2	.4	.6	2.4	.6	14
L440E 180S	7.2	.4	.6	.2	2.1	.6	1
L440E 182S	5.3	.4	1.0	.2	3.1	.7	1
L440E 184S	5.9	.5	1.0	.3	3.0	.6	2
L440E 186S	5.0	.4	.5	.3	3.1	.5	8
L440E 188S	5.3	.4	.6	.2	1.7	.6	1
L440E 190S	3.4	.3	1.5	.2	.8	.7	5
L440E 192S	4.1	.5	1.0	.5	2.7	.8	1
L440E 194S	9.7	1.0	1.3	.3	1.3	1.1	1
L440E 196S	10.3	.6	1.4	.2	2.6	1.1	9
L440E 198S	9.1	.6	1.2	.2	2.5	.8	11
L440E 200S	10.6	.3	2.3	.2	2.3	1.6	13
L440E 202S	6.3	.2	.6	.2	4.0	.4	5
L440E 204S	8.5	.5	2.1	.2	2.3	1.0	4
L440E 206S	6.2	.3	2.3	.2	3.4	.6	1
L440E 208S	12.3	.6	1.5	.2	2.5	.8	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L440E 210S	9.0	.6	3.3	.7	2.0	1.8	1
L440E 212S	9.0	.4	1.6	.2	1.4	.3	8
L440E 214S	6.8	.4	.5	.3	.9	.5	1
L440E 216S	7.8	.2	2.1	.2	1.5	.3	1
L440E 218S	3.2	.3	1.9	.2	1.4	.6	11
L440E 220S	2.1	.3	1.5	.2	2.9	.5	1
L440E 222S	1.9	.8	1.4	.2	3.7	.3	1
L440E 224S	12.3	.9	1.6	.4	6.1	.3	-
L440E 226S	1.7	.3	1.1	.6	.2	.3	-
L440E 228S	4.5	.6	1.6	.3	.3	.3	70
L440E 230S	11.7	.6	.5	.2	.2	.6	344
L440E 232S	14.0	.6	2.2	.4	3.7	.7	100
L440E 238S	13.5	.7	1.6	.2	9.4	.5	18
L440E 240S	8.4	.4	.9	.3	7.2	1.0	1
L440E 242S	10.8	.4	.9	.2	11.6	1.2	1
L440E 244S	7.5	.5	.5	.2	4.5	.4	1
L440E 246S	11.9	.5	.7	.2	10.8	1.0	1
L440E 248S	6.9	.3	3.8	.2	3.8	.3	67
L440E 250S	3.3	.6	1.2	.5	3.4	1.1	1
L440E 252S	27.9	.8	.7	.7	14.8	1.2	1
L440E 254S	15.9	.8	1.7	.5	2.8	.8	939
L440E 256S	7.5	.7	.3	.2	3.2	.9	7
L440E 258S	1.9	.1	.1	.4	2.9	.5	1
L440E 260S	1.1	.3	.1	.3	1.5	.7	1
L440E 264S	4.3	.4	1.0	.2	4.3	.3	1
L440E 266S	.1	.2	.1	.5	1.3	.7	1
L440E 268S	1.6	.2	.3	.2	.7	.3	1
L440E 270S	.1	.1	.1	.2	.2	.3	1
L440E 272S	6.7	.2	.1	.2	1.1	.3	1
L440E 274S	.8	.3	.1	.2	.5	.3	1
L440E 276S	.9	.3	.1	.2	1.1	.6	1
L440E 278S	1.4	.4	.2	.2	2.3	.3	1
L445E 180S	8.2	.2	.3	.2	3.7	.3	1
L445E 182S	10.3	.5	.1	.2	2.0	.3	1
L445E 184S	8.0	.2	1.6	.3	.9	.6	1
L445E 186S	8.2	.3	1.1	.2	2.2	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L445E 188S	10.0	.3	1.5	.5	3.1	1.5	22
L445E 190S	4.7	.5	1.2	.2	1.1	.3	1
L445E 192S	5.5	.3	1.7	.3	1.9	1.4	1
L445E 194S	9.7	.3	1.2	.2	2.4	.9	1
L445E 196S	6.3	.3	1.2	.2	1.0	.3	1
L445E 198S	9.6	.1	1.0	.3	1.6	1.4	1
L445E 200S	16.1	1.5	4.6	.2	3.4	2.1	1
L445E 202S	3.3	.9	.3	.2	.2	1.1	1
L445E 204S	3.5	.1	.5	.2	2.5	1.5	1
L445E 206S	6.0	.1	1.5	.2	1.5	1.5	1
L445E 208S	5.1	.4	1.5	.3	1.2	1.1	1
L445E 210S	6.5	.2	3.6	.2	3.0	1.9	1
L445E 212S	11.6	.2	3.3	.2	2.7	1.0	1
L445E 214S	6.9	.2	20.3	.2	3.5	2.5	1
L445E 216S	5.3	.1	3.3	.2	3.8	.5	1
L445E 218S	6.1	.2	8.8	.2	7.9	2.9	38
L445E 220S	14.6	.2	3.8	.2	3.5	2.2	1
L445E 226S	11.9	.2	1.4	.2	.2	.6	61
L445E 228S	35.2	1.2	3.5	.2	6.7	.5	212
L445E 230S	1.0	.1	.1	.3	.2	.3	1
L445E 232S	1.2	.2	.4	.2	.4	1.0	166
L445E 234S	.4	.2	.6	.2	.4	.6	1
L445E 236S	11.0	.2	1.2	.2	2.0	.7	1
L445E 238S	2.0	.1	.1	.2	.3	.3	1
L445E 240S	9.6	.3	1.2	.2	3.0	.7	29
L445E 244S	23.5	.5	1.6	.2	11.4	1.4	1
L445E 246S	22.2	.8	3.7	.2	5.2	1.6	31
L445E 248S	8.4	.3	3.8	.3	3.6	.3	1
L445E 250S	12.2	.4	.5	.2	10.7	1.3	1
L445E 252S	8.9	.3	.7	.4	4.9	1.2	1
L445E 254S	14.5	.5	.4	.2	3.2	1.0	1
L445E 256S	17.4	.7	2.9	.2	9.8	1.4	14
L445E 258S	2.4	.4	.4	.3	1.2	.6	1
L445E 260S	3.1	.3	.9	.2	.4	.3	30
L445E 262S	4.2	.3	.4	.2	6.3	.3	1
L445E 264S	3.8	.2	1.4	.2	3.0	.6	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L445E 266S	.2	.1	.4	.4	.4	.4	6
L445E 268S	.9	.2	.2	.3	.2	.3	1
L445E 270S	1.0	.2	.4	.3	5.0	.5	1
L445E 272S	3.3	.1	.1	.2	5.4	.3	1
L445E 274S	1.2	.1	.3	.2	2.1	.3	1
L445E 276S	5.4	.1	.1	.2	8.4	.3	1
L445E 278S	.2	.1	.1	.2	1.6	.3	1
L445E 280S	7.2	.6	.1	.2	4.2	.3	1
L445E 282S	2.8	.3	.2	.2	2.1	.3	1
L445E 284S	1.0	.1	.1	.4	2.2	.7	1
L445E 286S	1.3	.1	.1	.3	.4	.3	1
L445E 290S	1.9	.2	.7	.3	13.3	.3	1
L445E 302S	3.1	.2	.3	.2	3.3	.4	1
L445E 304S	6.2	.2	.5	.4	4.1	.5	5
L445E 306S	2.4	.1	.3	.2	.5	.4	1
L445E 308S	3.9	.4	.5	.3	1.6	.5	2
L445E 310S	13.1	.4	.5	.2	2.0	.5	1
L445E 310S A	4.4	.1	.2	.5	5.8	.3	1
L445E 312S	8.0	.2	.3	.2	5.6	.3	1
L445E 314S	7.7	.7	.9	.4	4.2	.3	1
L445E 314S A	5.3	.1	.5	.2	3.3	.4	1
L445E 316S	3.6	.5	.3	.8	1.3	.8	1
L445E 318S	6.3	.3	.6	.2	2.7	.3	1
L445E 320S	13.1	.7	.2	.3	8.2	.9	1
L445E 322S	21.6	.1	1.8	1.4	3.7	.6	1
L445E 324S	14.2	.2	.3	.5	5.3	.5	1
L445E 326S	.1	.1	.4	.2	.3	.3	1
L445E 328S	4.8	.2	.2	.2	.6	.3	2
L445E 330S	3.4	.1	.3	.2	3.9	.4	1
L450E 180S	6.6	.1	.2	.3	2.0	.3	1
L450E 182S	10.8	.1	.5	.4	3.2	.3	18
L450E 184S	6.5	.4	.6	.2	1.4	.3	1
L450E 186S	9.3	.3	.9	.3	3.8	.4	1
L450E 188S	8.4	.1	.6	.4	3.4	.4	1
L450E 190S	4.5	.4	1.6	.2	2.8	.3	1
L450E 192S	2.7	.3	1.1	.2	1.6	.3	-

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L450E 194S	2.9	.4	1.6	.2	.4	.3	1
L450E 196S	6.8	.4	1.6	.3	2.3	.3	1
L450E 198S	5.7	.7	1.5	.2	.7	.3	1
L450E 200S	7.5	.1	1.5	.2	3.2	.3	1
L450E 202S	9.2	.3	1.7	.3	1.0	1.0	1
L450E 204S	12.5	.1	1.4	.2	.6	.3	1
L450E 206S	7.3	.2	1.6	.2	2.2	.3	1
L450E 208S	8.9	.2	1.8	.2	2.9	.3	1
L450E 210S	13.7	.4	6.5	.2	7.2	2.8	15
L450E 212S	8.1	.1	2.5	.2	2.5	.5	1
L450E 214S	6.7	.3	.9	.2	1.1	.3	1
L450E 216S	5.8	.5	3.9	.3	.8	.5	1
L450E 218S	1.9	.1	1.7	.3	2.2	.3	1
L450E 220S	3.6	.2	1.4	.5	2.3	.5	1
L450E 230S	.6	.1	.1	.2	.2	.3	1
L450E 232S	1.2	.2	.5	.2	.5	.3	1
L450E 236S	.3	.1	.2	.2	.3	.3	1
L450E 238S	13.2	.6	.3	.2	.8	.3	1
L450E 240S	2.7	.8	1.0	.2	1.7	.4	4
L450E 242S	14.4	.9	9.1	.3	47.3	2.4	128
L450E 244S	12.6	1.1	4.6	.2	21.9	.5	12
L450E 246S	15.6	.4	1.1	.3	5.2	.3	1
L450E 248S	39.0	.7	1.6	.3	11.2	.7	19
L450E 250S	36.1	1.4	1.1	.2	1.3	.5	1
L450E 252S	5.7	.7	1.4	.2	2.1	.3	1
L450E 254S	13.7	1.0	.3	.3	2.8	.9	1
L450E 256S	13.0	.9	7.7	.3	2.4	1.3	1
L450E 258S	14.3	.6	1.2	.2	8.9	.8	4
L450E 260S	15.0	.8	.9	.2	6.4	1.1	1
L450E 262S	8.7	.7	.6	.3	4.3	1.0	21
L450E 264S	5.6	.5	3.1	.5	20.2	1.0	10
L450E 266S	30.6	.4	.6	.2	7.5	1.5	1
L450E 268S	7.2	.5	.5	.2	5.8	.9	1
L450E 270S	3.2	.7	.2	.2	.9	.4	1
L450E 272S	9.3	.6	.3	.3	10.1	1.3	1
L450E 274S	6.8	.3	.3	.2	4.2	.9	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L450E 276S	2.9	.1	.5	.2	.2	.3	2
L450E 278S	14.7	.3	.4	.2	18.1	.9	1
L450E 280S	4.5	.3	.1	.2	9.6	1.1	1
L450E 282S	4.4	.5	.6	.2	7.8	1.0	5
L450E 284S	7.9	.3	.8	.2	7.5	.7	1
L450E 286S	1.6	.3	.6	.3	1.3	.3	1
L450E 288S	28.6	.3	.5	.3	6.1	.5	87
L450E 306S	3.4	.3	.3	.2	.8	.3	1
L450E 308S	5.5	.3	.2	.3	9.5	1.2	1
L450E 310S	4.3	.3	.5	.4	4.9	2.2	1
L450E 312S	7.0	.3	.6	.2	6.1	.8	1
L450E 314S	5.5	.2	.8	.3	2.8	.7	1
L450E 316S	5.4	.3	.2	.3	5.0	.8	1
L450E 318S	21.3	.3	.8	.2	11.9	3.0	5
L450E 320S	2.7	.3	.1	.3	11.2	.7	1
L450E 322S	8.2	.2	.1	.2	13.3	1.5	5
L450E 324S	6.6	.3	.6	.3	13.8	1.2	1
L450E 326S	10.3	.2	.8	.6	7.5	.7	1
L450E 328S	3.4	.3	.2	.2	3.7	.4	1
L450E 330S	9.0	.2	.1	.2	2.7	.7	1
L455E 182S	4.7	.1	1.2	.6	3.7	.8	1
L455E 184S	3.7	.3	.1	.5	2.1	.9	1
L455E 186S	4.3	.1	.1	.2	3.3	.5	1
L455E 188S	1.7	.3	.1	1.6	1.0	1.1	1
L455E 190S	5.0	.3	.8	.2	3.0	.4	1
L455E 192S	4.8	.4	1.6	.7	1.9	.4	15
L455E 194S	7.6	.2	1.3	.2	1.7	.3	1
L455E 196S	6.8	.1	1.0	.6	4.1	.5	1
L455E 198S	7.3	.3	2.1	.8	2.0	1.5	1
L455E 200S	7.0	.2	2.8	.5	5.5	.6	1
L455E 202S	8.1	.3	1.5	.5	5.1	.5	1
L455E 204S	.1	.1	.7	3.0	.2	2.9	1
L455E 206S	7.9	.4	2.3	.8	2.5	.7	1
L455E 208S	7.9	.1	2.3	.7	3.4	.7	1
L455E 210S	6.4	.1	5.7	.9	5.3	1.9	1
L455E 212S	8.4	.1	3.6	.3	4.2	.6	36

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L455E 214S	7.2	.5	1.7	.3	4.4	1.0	1
L455E 216S	5.6	.2	1.7	.4	3.2	1.0	1
L455E 218S	9.4	.1	8.5	.2	9.4	4.1	1
L455E 220S	3.0	.2	1.0	.2	1.0	1.5	1
L455E 222S	2.7	.3	3.4	.2	5.1	.9	11
L455E 224S	2.8	.2	1.4	.2	3.1	.4	1
L455E 226S	4.9	.3	1.8	.2	3.6	.5	1
L455E 234S	17.7	.7	2.0	.2	6.3	.5	1
L455E 236S	29.2	.8	2.8	.2	19.5	1.1	43
L455E 238S	14.2	.5	2.1	.2	17.0	.6	11
L455E 240S	7.8	.5	.5	.2	2.4	1.2	29
L455E 242S	4.6	.4	2.0	.3	6.6	1.0	6
L455E 244S	28.5	1.0	2.1	.2	22.0	.8	1
L455E 246S	10.7	.7	1.7	.2	7.0	.9	5
L455E 248S	12.5	.9	2.1	.2	9.9	1.6	13
L455E 250S	20.4	.8	1.0	.2	9.1	1.8	12
L455E 252S	17.3	.5	1.5	.3	9.1	2.1	24
L455E 254S	13.5	.7	2.4	.3	18.8	1.6	11
L455E 256S	4.9	.3	2.0	.6	3.3	.7	5
L455E 258S	7.0	1.3	2.5	.2	5.1	.3	1
L455E 260S	7.4	.7	.6	.2	12.3	1.1	5
L455E 262S	7.0	.6	.8	.2	10.1	1.4	1
L455E 264S	4.0	.3	1.0	.2	12.9	.8	1
L455E 266S	5.3	.3	2.5	.2	21.5	1.6	1
L455E 268S	9.2	.4	.5	.2	12.3	1.2	1
L455E 270S	18.0	.7	.9	.2	15.9	3.3	1
L455E 272S	6.0	.6	.7	.5	11.2	1.0	1
L455E 274S	3.2	.6	.7	.2	10.2	.5	1
L455E 276S	8.6	.6	1.2	.2	11.0	1.3	1
L455E 278S	10.6	.7	.3	.2	22.2	1.3	1
L455E 280S	6.5	.5	.8	.2	12.0	.7	1
L455E 282S	5.8	.7	.5	.3	9.7	.8	1
L455E 284S	8.1	.6	.5	.2	9.5	.8	1
L455E 286S	5.4	.8	.7	.2	14.5	1.0	1
L455E 288S	4.6	.4	.8	.2	8.4	.3	1
L455E 290S	6.9	.5	.6	.2	3.7	1.1	1
L455E 290S A	2.6	.5	.5	.2	1.0	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L455E 292S	6.1	.2	.7	.2	5.9	.7	1
L455E 292S A	3.5	.2	.2	.4	2.7	1.0	1
L455E 294S	.2	.1	.3	.4	.2	.6	1
L455E 296S	3.9	.1	.3	.2	1.8	.3	2
L455E 300S	.6	.2	.4	.3	.9	.3	1
L455E 302S	3.7	.3	.3	.2	1.0	.3	1
L455E 304S	1.9	.2	.1	.2	.2	.3	1
L455E 306S	6.1	.4	.7	.2	1.3	.3	1
L455E 312S	8.6	.6	1.3	.2	4.0	.8	1
L455E 316S	9.5	.4	.1	.6	3.5	1.4	1
L455E 318S	6.1	.2	.5	.2	1.8	.4	1
L455E 320S	12.3	.1	.5	.2	11.1	1.3	1
L455E 322S	3.1	.9	.1	.2	.7	.7	1
L455E 324S	.1	.2	.1	.2	.3	.3	1
L455E 326S	.6	.2	.1	.3	.3	.3	1
L455E 328S	6.3	.2	.5	.2	1.7	.3	8
L455E 330S	7.1	.3	.4	.2	1.9	.5	1
L460E 180S	5.1	.4	.5	.2	1.6	.4	1
L460E 182S	8.0	.4	.2	.2	3.6	.6	6
L460E 184S	3.1	.4	.5	.2	.2	.3	1
L460E 186S	.6	.3	.3	.4	.2	.3	1
L460E 188S	2.9	.4	.3	.2	.3	.3	1
L460E 190S	7.4	.6	.4	.2	1.8	.5	1
L460E 192S	3.2	.4	.3	.2	.2	.3	1
L460E 194S	.9	.1	.3	.2	1.1	.3	1
L460E 196S	1.6	.1	.4	.2	.7	.3	1
L460E 198S	.2	.2	.1	.4	.2	.7	1
L460E 200S	2.4	.4	.9	.2	1.1	.3	1
L460E 202S	1.9	.2	.4	.2	.7	.3	1
L460E 204S	9.2	.4	2.6	.2	1.7	.3	1
L460E 206S	8.8	.3	5.9	.2	4.1	1.6	2
L460E 208S	8.6	.4	2.3	.2	3.1	.3	2
L460E 210S	8.5	.3	4.2	.2	4.1	1.1	1
L460E 212S	7.9	.9	3.1	.2	1.7	1.0	1
L460E 214S	10.3	.3	.8	.2	1.6	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L460E 216S	6.5	.4	1.7	.2	1.4	.6	1
L460E 218S	5.0	.3	3.6	.2	2.1	1.1	11
L460E 220S	4.7	.2	4.4	.2	2.3	1.1	19
L460E 222S	10.1	.1	1.9	.4	2.5	.5	11
L460E 224S	7.8	.4	3.1	.2	2.3	.8	8
L460E 226S	9.3	.1	6.7	.3	4.4	1.6	24
L460E 228S	7.7	.2	4.3	.3	3.1	1.0	23
L460E 230S	7.2	.3	4.8	.2	2.5	.9	14
L460E 232S	7.3	.2	5.2	.3	3.7	1.1	18
L460E 234S	18.1	.8	2.6	.2	13.6	.8	42
L460E 236S	18.3	.4	2.5	.2	16.6	.6	26
L460E 238S	18.6	.4	2.2	.2	14.3	.5	25
L460E 240S	11.2	.5	1.6	.2	3.0	.6	39
L460E 242S	4.8	.3	.9	.2	2.5	.5	18
L460E 244S	3.0	.3	.4	.2	1.6	.6	1
L460E 246S	8.9	.1	.7	.2	3.8	.3	1
L460E 248S	7.3	.3	1.4	.2	12.5	.6	26
L460E 250S	2.6	.4	1.8	.2	1.2	.6	15
L460E 252S	2.3	.1	.4	.3	1.6	.4	1
L460E 254S	3.7	.3	.2	.2	1.2	.5	7
L460E 256S	25.5	.5	1.3	.2	9.7	.5	1
L460E 258S	6.8	.3	1.4	.3	5.3	.7	3
L460E 260S	6.4	.1	.7	.2	7.5	.7	1
L460E 262S	7.2	.2	1.3	.3	8.9	.7	5
L460E 264S	10.3	.5	.6	.2	5.2	.7	1
L460E 266S	1.7	.1	.2	.2	.7	.3	1
L460E 268S	9.0	.1	.9	.2	8.4	1.0	1
L460E 270S	11.7	.1	.5	.2	3.5	.7	1
L460E 272S	9.8	.6	.4	.2	2.6	.8	1
L460E 274S	11.3	.5	.4	.3	4.0	1.0	1
L460E 276S	3.1	.2	.3	.2	5.2	.5	1
L460E 278S	6.6	.3	.3	.2	8.5	.7	1
L460E 280S	6.7	.1	.6	.2	11.8	.5	1
L460E 282S	5.9	.5	.5	.3	7.6	1.0	1
L460E 284S	5.1	.2	.4	.2	9.1	.6	1
L460E 286S	2.3	.2	.5	.2	2.1	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPM
L460E 288S	1.7	.1	.7	.2	4.5	.6	5
L460E 290S	1.5	.4	.4	.3	7.8	.4	1
L460E 290S A	5.1	.1	.5	.2	14.2	1.0	8
L460E 292S	5.1	.3	.1	.2	1.5	.4	6
L460E 292S A	4.9	.3	.3	.2	3.0	.8	1
L460E 294S	4.1	.1	.1	.2	4.0	.3	1
L460E 296S	4.5	.1	.1	.2	7.5	.5	6
L460E 298S	9.9	.1	.4	.2	17.9	.3	7
L460E 300S	3.4	.1	.2	.2	3.7	.3	1
L460E 302S	5.4	.1	.6	.2	18.1	1.2	12
L460E 304S	3.2	.2	.1	.2	4.8	.3	1
L460E 306S	7.6	.3	.3	.2	7.5	.7	4
L460E 308S	5.2	.6	.3	.2	2.5	.8	1
L460E 310S	8.6	.2	.1	.2	7.3	.6	1
L460E 312S	8.0	.1	.6	.2	4.7	.7	6
L460E 314S	9.6	.2	.7	.2	6.2	.7	6
L460E 316S	.1	.4	.4	.2	.6	.3	11
L460E 318S	7.7	.3	.6	.2	8.7	1.3	8
L460E 320S	3.5	.1	.2	.2	2.3	.5	1
L460E 322S	4.3	.3	.4	.3	4.3	1.4	19
L460E 324S	5.5	.1	.4	.2	3.0	.7	1
L460E 326S	7.6	.2	.4	.2	4.0	.5	1
L460E 328S	2.2	.2	.3	.2	.4	.3	70
L460E 330S	7.9	.1	.1	.2	1.6	.3	15
L465E 180S	7.0	.4	.4	.4	1.4	.4	10
L465E 182S	.9	.2	.6	.2	.6	.3	1
L465E 184S	3.7	1.0	.3	.2	.6	.6	1
L465E 186S	4.8	.5	.7	.2	1.4	.4	1
L465E 188S	1.1	.2	.9	.5	.4	.6	1
L465E 190S	2.4	1.0	.6	.3	.8	.8	6
L465E 192S	4.0	.6	.2	.5	.9	1.0	1
L465E 194S	3.5	.3	.4	.2	.7	.3	1
L465E 196S	.5	1.1	.4	.2	4.4	1.8	1
L465E 198S	4.1	.4	.7	.5	.4	.5	18
L465E 202S	2.4	.2	.5	.2	.3	.7	1
L465E 204S	4.7	.2	1.3	.2	.4	.6	13

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L465E 206S	.4	.3	.7	.3	.4	.3	1
L465E 208S	.2	.3	.1	.2	.2	.3	1
L465E 210S	.1	.2	.4	.3	.2	.3	1
L465E 212S	8.5	.2	1.8	.2	2.0	.3	6
L465E 214S	4.6	.9	.7	.2	1.1	.3	1
L465E 216S	8.9	.6	8.6	.3	5.8	1.9	1
L465E 218S	4.6	1.2	.9	.2	.8	.3	8
L465E 220S	4.1	1.0	2.4	.2	.5	.3	1
L465E 222S	7.3	.9	2.8	.2	1.1	.9	12
L465E 224S	11.6	.9	15.9	.2	11.3	4.8	13
L465E 226S	8.9	.3	6.0	.2	3.2	1.3	9
L465E 228S	6.4	.3	2.0	.2	2.8	.4	1
L465E 230S	7.4	.2	2.5	.2	1.8	.3	5
L465E 232S	.5	.2	2.0	.2	1.5	.3	21
L465E 234S	.4	.5	.6	.4	.3	.4	42
L465E 236S	14.3	.8	2.1	.2	12.2	.4	19
L465E 238S	11.3	.5	2.6	.2	12.5	.7	55
L465E 244S	13.1	.4	1.8	.2	15.4	.3	28
L465E 248S	.4	.2	.5	.3	.4	.4	1
L465E 250S	7.2	.2	.4	.4	10.4	.6	1
L465E 252S	3.1	.4	1.8	.2	2.0	.7	7
L465E 254S	6.7	.4	.9	.2	8.8	.8	1
L465E 256S	7.4	.7	1.8	.5	6.0	1.4	5
L465E 258S	.1	.1	.4	.2	.6	.3	48
L465E 260S	8.8	.3	.6	.2	3.2	.5	1
L465E 262S	7.3	.1	1.6	.2	11.8	.3	15
L465E 264S	4.1	.3	.5	.2	1.4	.3	1
L465E 266S	1.0	.5	1.2	.2	3.5	.3	1
L465E 268S	9.3	.6	.7	.2	11.1	1.6	9
L465E 270S	41.5	1.0	.8	.2	6.1	.9	1
L465E 272S	13.8	.1	.7	.2	7.3	1.1	5
L465E 274S	16.9	.4	.5	.2	7.6	1.0	1
L465E 276S	6.4	.2	.8	.2	6.1	1.0	1
L465E 278S	6.4	.1	.6	.2	2.9	.6	1
L465E 280S	3.4	.2	.5	.2	1.4	.8	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L465E 282S	5.4	.4	1.2	.2	4.7	.3	3
L465E 284S	5.5	.1	.5	.2	6.4	.3	1
L465E 286S	.4	.1	.5	.2	1.8	.3	1
L465E 288S	1.4	.6	.3	.2	.3	.3	1
L465E 290S	3.4	.2	.6	.2	7.6	.3	6
L465E 290S A	.7	.2	.4	.3	1.4	.3	-
L465E 292S	1.0	.1	.6	.2	3.8	.3	1
L465E 292S A	.3	.1	.2	.2	.2	.3	1
L465E 294S	3.2	.4	.1	.4	5.1	.7	11
L465E 296S	3.3	.1	.2	.2	15.4	1.1	1
L465E 298S	1.3	.1	.3	.6	4.8	1.0	1
L465E 300S	1.1	.1	.2	.2	3.0	.3	3
L465E 302S	1.9	.1	.6	.2	9.9	1.3	1
L465E 304S	2.4	.1	.5	.3	7.1	.7	1
L465E 306S	4.5	.1	.4	.3	2.2	1.5	1
L465E 308S	5.1	3.0	.6	.3	1.1	.5	1
L465E 310S	5.5	1.1	.4	.2	3.2	.6	1
L465E 312S	9.4	5.3	.3	.2	3.8	.3	15
L465E 314S	6.4	.7	.6	.4	3.2	.3	1
L465E 316S	6.6	.5	.9	.3	3.2	.9	3
L465E 318S	1.8	.1	.1	.3	10.2	1.1	1
L465E 320S	4.1	.2	.2	.3	7.5	1.4	38
L465E 322S	4.3	.1	.2	.4	2.9	.7	13
L465E 324S	8.8	.1	.5	.3	3.3	.6	1
L465E 326S	2.4	.2	.1	.2	3.4	.8	1
L465E 328S	2.1	.1	.5	.3	3.2	.7	82
L465E 330S	7.5	.1	.1	.4	1.3	.3	1
L465E 332S	5.4	.4	.2	.2	1.4	.6	14
L470E 180S	4.2	.1	.4	.5	2.2	.6	17
L470E 182S	1.3	.5	.2	.4	.6	.3	1
L470E 184S	1.5	.7	.4	.6	.7	1.1	9
L470E 186S	1.4	.2	.5	.3	.2	.3	6
L470E 188S	6.6	.3	.7	.6	.8	1.0	1
L470E 190S	3.3	.3	.3	.4	.2	.6	1
L470E 192S	5.9	.4	.7	.6	.6	.8	1
L470E 194S	.8	.1	.5	.6	.7	.6	300

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB	
L470E 196S	-	-	-	-	-	-	-	1.5.
L470E 198S	-	-	-	-	-	-	-	
L470E 200S	-	-	-	-	-	-	-	
L470E 202S	27.8	.8	.9	.2	4.0	.4	1	
L470E 204S	-	-	-	-	-	-	-	1.5
L470E 206S	-	-	-	-	-	-	-	
L470E 208S	7.3	.5	1.2	.2	1.7	.3	1	
L470E 210S	8.1	.9	2.0	.2	1.4	.3	9	
L470E 212S	8.7	.8	1.6	.2	2.2	.3	1	
L470E 214S	8.4	.3	.6	.5	1.6	.4	1	
L470E 216S	11.1	.4	1.1	.2	1.2	.3	4	
L470E 218S	5.8	.5	1.1	.2	.6	.3	1	
L470E 220S	11.7	.8	3.1	.2	1.1	.3	1	
L470E 222S	9.4	.6	3.1	.2	1.6	.4	1	
L470E 224S	31.3	.3	.5	.2	2.4	.3	7	
L470E 226S	17.5	.4	5.8	.2	2.8	1.3	1	
L470E 228S	10.6	.5	21.0	.2	4.0	3.3	1	
L470E 230S	13.3	.5	4.3	.2	1.4	.9	1	
L470E 232S	6.7	.4	1.4	.2	1.7	.3	6	
L470E 234S	10.3	.6	2.7	.2	3.8	.6	1	
L470E 236S	.7	.3	.5	.7	.2	.3	65	
L470E 238S	9.2	.6	2.4	.4	1.0	.3	1	
L470E 240S	13.1	.2	3.7	.2	5.2	.3	29	
L470E 242S	17.4	.8	2.6	.2	10.5	.3	85	
L470E 244S	8.6	.6	2.0	.2	6.9	.4	130	
L470E 248S	1.4	.3	.7	.5	2.8	.3	1	
L470E 250S	9.1	.4	.5	.2	4.4	.3	12	
L470E 252S	5.5	.4	.5	.2	1.7	.3	25	
L470E 254S	9.1	.6	2.2	.2	6.9	.7	3	
L470E 256S	5.7	.6	1.4	.2	5.7	.3	1	
L470E 258S	4.5	.2	.1	.3	4.4	.3	5	
L470E 260S	4.4	.4	.5	.2	6.1	.3	1	
L470E 262S	1.8	.6	.4	.2	1.8	.4	1	
L470E 264S	7.8	.4	.7	.4	6.6	.6	3	
L470E 266S	10.6	.7	.2	.4	4.8	.3	8	
L470E 268S	8.1	.2	.4	.2	9.1	1.0	1	

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L470E 270S	6.6	.6	.5	.2	5.9	.5	3
L470E 272S	5.7	.6	.6	.2	9.5	.7	6
L470E 274S	2.5	1.5	.2	.2	5.8	.3	196
L470E 276S	7.5	.6	.1	.2	13.7	.3	1
L470E 280S	5.4	.5	.4	.4	7.0	.5	1
L470E 282S	1.9	.3	.1	.2	6.4	.3	1
L470E 284S	1.7	.1	.2	.2	2.4	.3	11
L470E 286S	4.0	.2	.2	.2	3.5	.3	7
L470E 288S	3.9	.3	.2	.2	5.3	.3	1
L470E 290S	-	-	-	-	-	-	- I.S.
L470E 292S	.8	.1	.2	.2	2.6	.3	1
L470E 296S	2.5	.3	.3	.4	3.4	.4	4
L470E 298S	5.0	.3	.2	.4	6.5	.4	1
L470E 300S	1.0	.1	.1	.2	2.5	.3	3
L470E 302S	3.0	.4	.2	.3	5.0	.6	10
L470E 304S	.9	.1	.6	.2	4.8	.5	31
L470E 306S	-	-	-	-	-	-	-
L470E 308S	7.1	1.9	.3	.3	1.9	.6	5
L470E 310S	4.1	1.1	.1	.3	4.5	.3	5
L470E 312S	6.9	.4	.5	.2	7.0	.3	4
L470E 314S	8.5	.3	.6	.2	9.5	.3	12
L470E 316S	7.6	.1	.5	.4	16.9	.4	1
L470E 318S	.3	.2	.3	.6	.2	.7	368
L470E 320S	2.1	.1	.1	.2	4.9	.3	6
L470E 322S	3.8	.1	.2	.2	2.0	.7	16
L470E 324S	4.0	.1	.1	.2	4.7	1.2	12
L470E 326S	8.0	.1	.3	.2	2.5	.3	15
L470E 328S	9.4	.1	.2	.2	3.2	.3	15
L475E 180S	4.8	.3	.3	.3	.3	.3	17
L475E 182S	5.0	.2	.3	.2	2.0	.3	7
L475E 184S	6.1	.1	.2	.2	1.4	.3	24
L475E 186S	9.0	.2	.3	.2	1.2	.9	4
L475E 188S	11.0	.1	.1	.3	1.5	.7	7
L475E 190S	1.5	.1	.2	.3	1.2	.3	42
L475E 192S	2.9	.2	.2	.4	.4	.3	6

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L475E 196S	7.3	.1	.1	2.2	.8	3.7	-
L475E 198S	-	-	-	-	-	-	-
L475E 200S	-	-	-	-	-	-	-
L475E 202S	1.0	.5	.2	.3	.9	.8	35
L475E 204S	8.5	.2	.6	.2	.4	.6	10
L475E 206S	2.3	.5	.3	.2	.7	.3	-
L475E 208S	.9	.2	.4	.6	.5	.3	18
L475E 210S	5.0	.1	.4	.2	.4	.4	5
L475E 212S	9.2	.8	.6	.4	.4	.7	15
L475E 214S	4.7	.5	1.0	.2	.6	.5	38
L475E 216S	10.0	.1	1.2	.2	2.8	.3	8
L475E 218S	6.3	1.1	1.5	.2	.5	.3	4
L475E 220S	12.2	.6	.6	.2	1.9	.5	20
L475E 222S	14.4	.8	7.1	.2	1.8	1.3	11
L475E 224S	7.6	.1	.3	.2	.7	.3	26
L475E 226S	8.7	1.5	1.9	.2	1.9	.4	34
L475E 228S	12.9	.9	1.4	.2	1.1	.4	15
L475E 230S	11.1	.9	2.0	.2	2.3	.6	17
L475E 232S	11.0	.6	3.2	.2	.2	.7	1
L475E 234S	12.6	2.1	2.4	.2	.6	.3	1
L475E 236S	11.6	1.0	2.5	.4	.5	.9	1
L475E 238S	2.7	1.2	.9	.2	.8	.3	1
L475E 240S	12.0	.5	2.0	.2	2.3	1.0	1
L475E 242S	5.1	.5	1.2	.2	1.3	.3	4
L475E 244S	14.1	.9	3.0	.2	6.7	.3	43
L475E 246S	14.9	.8	3.1	.3	8.4	.3	1
L475E 248S	6.6	.4	1.6	.2	5.6	.6	26
L475E 250S	9.4	.9	2.4	.2	7.9	.6	7
L475E 252S	7.4	.4	1.1	.2	4.1	.3	25
L475E 254S	2.6	1.4	.7	.2	2.6	.3	25
L475E 256S	4.1	.5	.9	.2	2.1	.3	27
L475E 258S	5.0	.8	2.0	.2	4.2	.3	1
L475E 260S	1.0	.4	.1	.2	1.6	.3	518
L475E 262S	6.6	1.1	1.0	.2	2.4	.9	8
L475E 264S	6.4	.6	.3	.2	2.4	.3	14

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L475E 266S	10.5	.5	.9	.2	2.6	.5	6
L475E 268S	5.7	.8	.5	.2	12.7	.3	1
L475E 270S	5.2	1.1	1.0	.2	4.8	.8	1
L475E 272S	5.8	.5	.8	.2	3.4	.3	1
L475E 274S	12.0	.7	.8	.2	4.8	.7	1
L475E 276S	5.2	.6	.6	.2	3.4	.6	1
L475E 278S	7.1	.8	.4	.4	4.0	1.1	1
L475E 280S	113.2	1.7	.4	.3	6.9	8.1	117
L475E 282S	3.7	.4	.2	.2	1.5	.3	1
L475E 284S	2.3	.4	.5	.2	1.0	.3	1
L475E 286S	1.9	.8	.6	.4	1.0	.3	1
L475E 290S	1.0	.2	.4	.4	.4	.6	1
L475E 292S	5.5	.8	.6	.2	3.6	.8	3
L475E 312S	.3	.3	.3	.2	.2	.3	129
L475E 314S	.9	.2	.4	.2	1.0	.6	26
L475E 316S	6.5	.5	.8	.2	2.6	.7	10
L475E 318S	5.8	.3	1.1	.2	.8	.3	-
L475E 320S	7.9	.1	1.3	.2	4.1	.6	18
L475E 322S	9.9	.6	.5	.2	2.7	.3	1
L475E 324S	7.6	.2	.6	.3	2.5	1.1	1
L475E 326S	9.3	.3	.6	.2	1.7	1.2	3
L475E 328S	6.6	.4	.6	.2	2.2	.6	29
L475E 330S	4.7	.3	.7	.2	19.9	1.7	15
L480E 180S	5.4	.3	.2	.2	1.6	.7	1
L480E 182S	2.4	.3	.4	.2	1.9	.3	1
L480E 184S	8.9	.7	.5	.3	2.0	1.2	1
L480E 186S	2.8	.5	.2	.2	.2	.8	5
L480E 188S	3.5	.8	.5	.2	.2	.7	1
L480E 190S	7.8	.6	.6	.3	.4	.8	-
L480E 192S	6.8	.5	.2	.2	.3	.7	1
L480E 194S	2.1	.8	.2	.2	.3	.7	1
L480E 196S	2.8	.2	.2	.3	.4	2.0	1
L480E 198S	4.9	.5	.3	.2	.3	.3	1
L480E 200S	10.9	.4	.3	.2	.5	.5	1
L480E 202S	7.3	.2	.1	.4	.7	.6	1
L480E 204S	4.8	.2	.6	.2	.3	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L480E 206S	4.4	.6	1.5	.3	.7	.5	1
L480E 208S	6.4	.6	1.0	.3	.2	.3	1
L480E 210S	12.2	.7	1.8	.3	1.2	.8	-
L480E 212S	4.3	.2	.5	.4	.5	1.1	1
L480E 214S	6.0	.1	.8	.2	.2	.7	1
L480E 216S	2.3	.8	.8	.4	.2	.8	5
L480E 218S	5.5	.6	.9	.5	.2	.9	1
L480E 220S	7.1	1.2	.9	.3	1.2	.9	17
L480E 222S	7.5	.7	1.1	.3	.7	.8	28
L480E 224S	9.9	.9	2.2	.2	.9	1.4	1
L480E 226S	-	-	-	-	-	-	-
L480E 228S	12.4	.8	1.5	.4	.5	.8	1
L480E 232S	14.3	.1	3.1	.4	2.1	1.0	16
L480E 234S	14.1	.3	3.0	.3	1.8	1.2	1
L480E 236S	3.2	.2	.7	.3	3.1	1.1	1
L480E 238S	5.4	.2	.2	.2	.2	.3	1
L480E 240S	5.8	.5	1.0	.6	1.2	.4	1
L480E 242S	3.1	.1	2.5	.4	2.4	.3	1
L480E 244S	4.2	.6	1.0	.6	1.7	1.3	20
L480E 246S	7.0	.9	1.6	.2	1.9	.6	15
L480E 248S	9.3	.1	2.3	.2	4.8	.3	1
L480E 250S	7.3	.2	.8	.2	4.9	.3	1
L480E 252S	3.2	.1	.4	.3	3.7	.5	1
L480E 254S	2.3	.1	.7	.5	3.4	.4	13
L480E 256S	8.0	.1	1.2	.2	5.0	.3	1
L480E 258S	6.5	.2	.6	.7	2.0	.7	13
L480E 260S	5.3	.1	.6	.3	.5	.3	1
L480E 262S	6.4	.1	.4	.2	2.0	.3	1
L480E 264S	10.9	.1	.6	.2	4.8	.5	5
L480E 266S	6.2	.5	.8	.2	2.3	.3	5
L480E 268S	4.0	.1	.5	.2	6.1	.3	1
L480E 270S	6.9	.1	.7	.2	5.9	.3	12
L480E 272S	10.6	.1	.4	.2	4.7	.5	1
L480E 274S	7.0	1.0	1.3	.5	7.4	.7	19
L480E 276S	8.7	.6	.2	.4	4.0	1.2	12
L480E 278S	10.5	.1	.4	.2	3.4	.3	15

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L480E 280S	3.4	.8	.7	3.3	7.8	7.4	1
L480E 282S	34.3	1.0	.9	.2	5.1	.7	8
L480E 284S	4.4	.6	.7	.5	7.2	1.2	1
L480E 286S	2.8	.1	.5	.4	5.3	.9	5
L480E 288S	5.5	.4	.3	.4	6.0	1.2	1
L480E 290S	1.6	.3	.2	.2	1.8	.3	4
L480E 292S	-	-	-	-	-	-	1
L480E 292S A	.2	.1	.1	.6	.5	1.1	1
L480E 294S	3.8	.1	.3	.8	2.5	1.4	1
L480E 296S	.4	.3	.1	.8	.6	1.1	1
L480E 298S	2.8	.1	.2	.3	2.0	.4	42
L480E 300S	.4	.1	.2	.4	.4	.6	1
L480E 302S	.3	.1	.1	.2	.2	.7	1
L480E 304S	.1	.2	.2	.3	.2	.4	8
L480E 306S	1.2	.2	.1	.6	2.7	.8	1
L480E 308S	2.8	.1	.1	.7	7.0	.8	1
L480E 310S	2.0	.8	.9	1.8	4.5	6.4	1
L480E 312S	5.0	.2	.7	.2	2.7	.8	16
L480E 314S	.1	.1	.4	.9	.2	.9	1
L480E 316S	.3	.1	.1	.2	.2	.3	1
L480E 318S	5.2	.1	.1	.8	1.3	1.0	1
L480E 320S	9.5	.1	.5	.4	5.1	1.0	1
L480E 322S	9.0	.1	.4	.2	1.9	1.2	4
L480E 324S	7.1	.1	.3	.2	3.4	.8	9
L480E 326S	6.5	.1	.2	.2	16.7	.8	1
L480E 328S	4.7	.1	.5	.2	30.9	1.3	1
L480E 330S	4.8	.1	.2	.2	4.4	1.0	1
L485E 232S	17.1	.7	3.2	.2	2.7	1.0	1
L485E 234S	15.4	.1	2.5	.4	2.1	1.2	1
L485E 236S	9.2	.1	2.9	.7	1.3	1.6	25
L485E 238S	6.9	.1	.5	.3	3.5	1.0	1
L485E 240S	6.6	.1	.5	.2	2.6	.3	18
L485E 242S	14.6	.6	.9	.3	1.2	.7	11
L485E 244S	7.0	.7	.6	.2	1.4	1.3	22
L485E 246S	2.6	.1	.5	.2	.6	.8	1
L485E 250S	2.2	.1	.1	.2	.8	.3	10
L485E 252S	1.3	.3	1.0	.2	3.5	.3	529

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L485E 254S	5.4	2.5	2.7	.9	.2	4.0	-
L485E 256S	13.2	.1	1.9	.3	4.5	1.3	50
L485E 258S	7.4	.1	1.4	.4	4.4	.6	1
L485E 260S	8.1	.1	.6	.2	.4	.3	1
L485E 262S	8.6	.1	1.2	.2	1.2	1.1	1
L485E 264S	2.2	.1	.2	.2	.2	.3	1
L485E 266S	8.1	.2	.5	.4	3.9	1.1	1
L485E 268S	11.4	.3	1.2	.2	5.5	.9	9
L485E 270S	10.5	.1	.8	.2	2.7	1.8	1
L485E 272S	8.3	.1	1.4	.8	2.5	2.6	1
L485E 274S	1.8	1.2	.4	.2	.4	.3	1
L485E 276S	11.2	.2	.7	.3	.4	2.0	78
L485E 278S	19.4	.3	1.2	.2	2.4	1.0	1
L485E 280S	13.2	.2	.7	.2	3.4	.3	1
L485E 282S	11.2	.6	.4	.2	5.8	.7	23
L485E 284S	4.8	.1	.2	.2	3.3	.3	1
L485E 286S	6.1	.8	1.0	.2	10.0	.8	14
L485E 288S	6.8	.9	.3	.3	2.4	.9	23
L485E 290S	3.9	.1	.4	.2	7.0	1.2	1
L485E 290S A	2.7	1.3	.4	.2	2.7	.4	1
L485E 292S	1.6	.1	.1	.2	2.2	.6	8
L485E 292S A	2.6	.1	.1	.2	5.8	.3	1
L485E 294S	9.8	.1	.2	.3	6.9	.9	1
L485E 296S	2.1	.1	.2	.2	.2	1.1	1
L485E 298S	1.1	.1	.1	.2	6.1	.3	6
L485E 300S	1.6	.1	.2	.2	2.8	.6	1
L485E 302S	6.8	.6	.1	.3	4.0	1.2	1
L485E 304S	.3	.1	.5	.5	.2	1.3	6
L485E 306S	.2	1.3	.3	.2	.2	.8	9
L485E 308S	.5	.1	.1	.3	.2	.3	1
L485E 310S	10.8	1.5	.6	.3	5.9	.5	1
L485E 312S	12.5	.4	.9	.2	13.8	2.2	1
L485E 314S	4.2	1.2	.2	.5	4.7	1.4	8
L485E 316S	6.7	1.0	.3	.4	2.9	1.5	6
L485E 318S	8.3	.3	.5	1.0	1.2	2.0	1
L485E 320S	.1	1.1	.1	.2	.2	.3	1

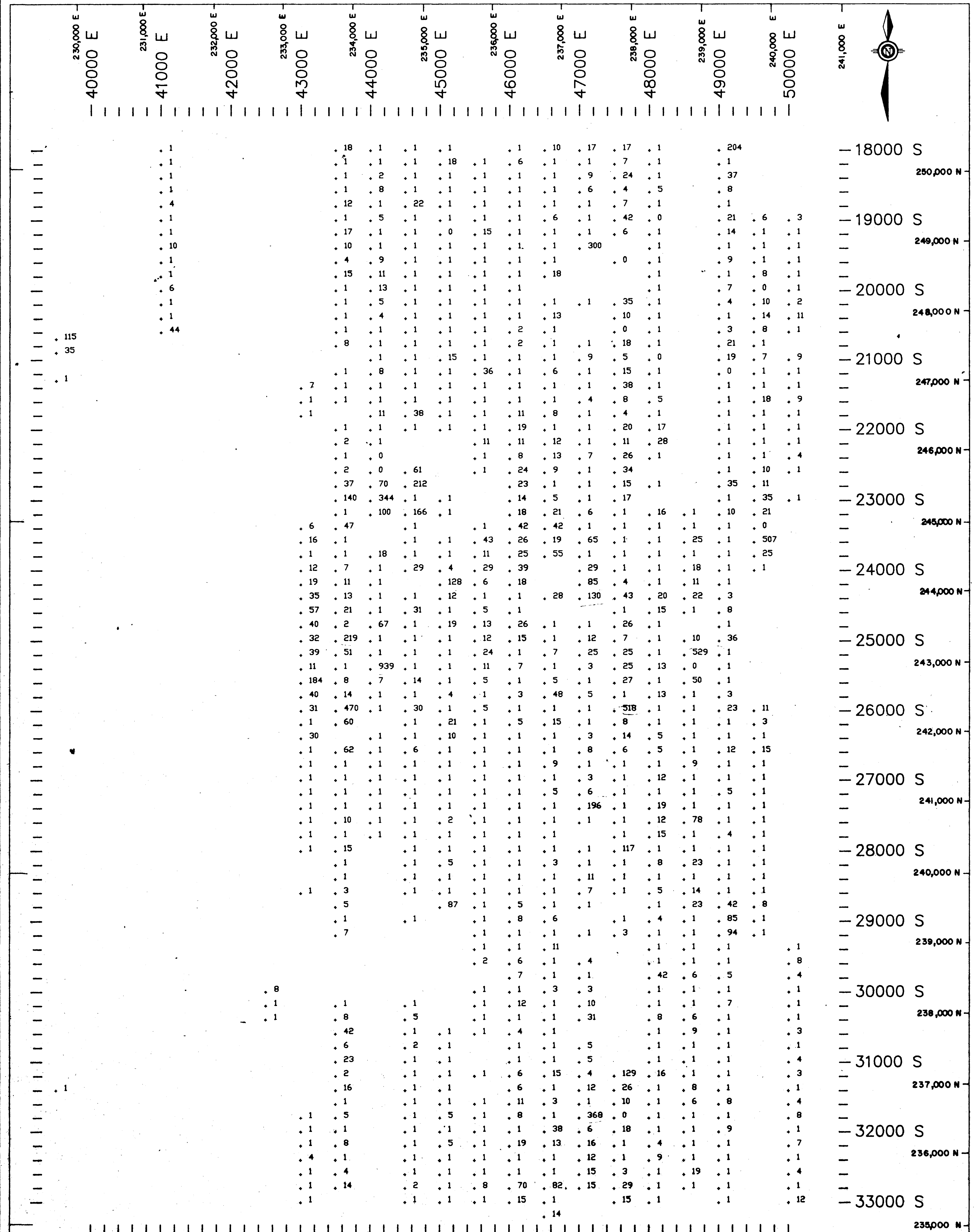
SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L485E 322S	3.8	.7	1.6	.8	2.8	1.0	1
L485E 324S	10.6	.7	2.4	.4	8.4	.4	1
L485E 326S	2.2	.6	1.1	.4	.2	.3	19
L485E 328S	4.2	.7	.7	.7	.2	.3	1
L490E 180S	7.0	.2	.8	.2	.9	.3	204
L490E 182S	10.3	.1	.5	.2	2.0	.3	1
L490E 184S	6.3	.2	.2	.2	1.5	.3	37
L490E 186S	2.3	.2	.5	.2	.4	.3	8
L490E 188S	2.5	.2	.2	.2	.2	.3	1
L490E 190S	10.4	.1	.5	.3	.7	1.8	21
L490E 192S	11.2	.1	.6	.7	.2	.7	14
L490E 194S	6.6	.4	.9	.2	.5	.6	1
L490E 196S	12.6	.2	.8	.6	.6	.5	9
L490E 198S	3.5	.1	.2	.2	.2	.3	1
L490E 200S	9.1	.5	.4	.5	.4	.3	7
L490E 202S	4.9	.2	.7	.2	.3	.3	4
L490E 204S	1.9	.3	.2	.2	.2	.4	1
L490E 206S	.7	.3	.6	.2	.7	.3	3
L490E 208S	10.0	.8	1.3	.8	1.1	.7	21
L490E 210S	1.9	.3	.6	.4	.2	.8	19
L490E 212S	6.9	.6	.5	.8	.4	1.1	-
L490E 214S	9.8	.6	.9	.5	1.1	.5	1
L490E 216S	7.4	.4	1.7	.2	2.1	.3	1
L490E 218S	1.8	.8	1.5	.2	1.4	.7	1
L490E 220S	5.5	.2	.9	.7	1.2	.9	1
L490E 222S	9.1	.9	3.9	.3	1.9	1.7	1
L490E 224S	7.8	.6	3.4	.2	.2	.6	1
L490E 226S	21.3	.6	2.5	.2	2.8	.3	1
L490E 228S	9.3	.1	1.6	.2	.8	.3	35
L490E 230S	8.3	.1	1.3	.2	1.8	.7	1
L490E 232S	8.4	.1	1.2	.2	.6	.3	10
L490E 234S	2.5	.2	.1	.2	.2	.5	1
L490E 236S	10.9	1.6	1.0	.7	1.0	.6	1
L490E 238S	5.9	.5	.7	1.1	.6	.3	1
L490E 240S	2.5	.9	.6	.3	.2	.3	1
L490E 242S	3.8	.1	1.2	.3	.2	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L490E 244S	5.4	.3	.7	.2	1.8	.7	3
L490E 246S	8.6	.5	.8	.2	3.5	.7	8
L490E 248S	3.9	.3	.9	.2	2.3	.3	1
L490E 250S	3.0	.4	.9	.2	.7	.5	36
L490E 252S	3.0	.2	.5	.2	1.5	.3	1
L490E 254S	1.4	.2	.8	.2	3.6	.6	1
L490E 256S	3.2	.4	1.0	.2	3.8	.6	1
L490E 258S	10.8	.5	1.6	.2	11.3	.7	3
L490E 260S	6.8	.3	.9	.2	7.4	.8	23
L490E 262S	7.4	.4	.8	.3	3.3	.4	1
L490E 264S	7.5	.4	.8	.2	4.6	.4	1
L490E 266S	8.4	.2	.8	.2	5.9	.4	12
L490E 268S	13.3	.4	1.0	.2	7.3	.9	1
L490E 270S	8.4	.4	1.0	.2	5.9	1.0	1
L490E 272S	14.5	.5	.9	.2	9.6	1.4	5
L490E 274S	10.8	.6	.7	.4	7.7	1.2	1
L490E 276S	10.9	.5	.7	.2	5.8	1.5	1
L490E 278S	8.9	.3	.6	.4	8.8	1.6	4
L490E 280S	8.0	.3	.2	.2	4.4	.6	1
L490E 282S	1.4	.3	.2	.3	4.4	.7	1
L490E 284S	6.2	.3	.4	.3	17.4	1.3	1
L490E 286S	3.9	.5	.3	.2	4.3	.6	1
L490E 288S	3.8	.3	.4	.3	10.4	1.2	42
L490E 290S	7.1	.4	.5	.2	8.8	.3	85
L490E 290S A	10.4	.5	.3	.2	8.3	.6	14
L490E 292S	4.6	.7	.1	.2	8.8	1.1	94
L490E 292S A	4.5	.2	.3	.2	35.1	.3	1
L490E 294S	4.6	.1	.1	.2	10.4	.8	1
L490E 296S	3.6	.2	.2	.2	6.3	.9	1
L490E 298S	7.8	.5	.5	.3	10.1	.7	5
L490E 300S	4.0	.6	.6	.3	28.8	.6	1
L490E 302S	2.1	.2	.1	.2	5.4	.5	7
L490E 304S	5.3	.4	.4	.4	12.4	.8	1
L490E 306S	20.0	.5	.2	.2	22.9	.7	1
L490E 308S	2.3	.3	.3	.3	1.4	.3	1
L490E 310S	1.7	.3	.1	.2	2.6	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L490E 312S	6.8	.7	.6	.2	4.9	.3	1
L490E 314S	1.6	.3	.5	.2	.2	.3	1
L490E 316S	23.5	.8	1.0	.2	6.0	.4	8
L490E 318S	.3	.1	.4	.5	.2	.3	1
L490E 320S	.4	.7	.6	.2	.2	.3	9
L490E 322S	26.1	1.5	6.8	.3	20.9	.6	1
L490E 324S	7.4	.3	.4	.2	1.0	.3	1
L490E 326S	3.6	.3	.2	.2	1.2	.3	1
L490E 328S	3.0	.3	.3	.2	.3	.3	1
L490E 330S	.5	.2	.3	.2	.2	.3	1
L495E 190S	2.4	.4	.4	.2	.7	.3	6
L495E 192S	4.2	.6	.5	.2	1.2	.3	1
L495E 194S	9.0	.5	.4	.2	.7	.3	1
L495E 196S	13.2	.6	.6	.2	.8	.3	1
L495E 198S	16.4	.3	.5	.2	1.4	.4	8
L495E 200S	4.5	.5	.7	.2	.2	.4	-
L495E 202S	9.8	.2	.6	.2	.7	.3	10
L495E 204S	9.8	.6	.2	.2	.7	.3	14
L495E 206S	21.8	.6	.4	.2	.5	.3	8
L495E 208S	1.8	.2	.2	.2	.5	.4	1
L495E 210S	2.0	.4	.1	.4	.2	.3	7
L495E 212S	6.5	.4	.3	.4	2.1	.3	1
L495E 214S	14.8	.2	.4	.4	8.2	.6	1
L495E 216S	7.1	.2	.7	.2	3.1	.6	18
L495E 218S	6.1	.6	.9	.4	2.3	.7	1
L495E 220S	4.8	.3	.8	.2	1.6	.6	1
L495E 222S	5.2	.2	.6	.2	1.2	.3	1
L495E 224S	9.7	.2	1.0	.2	1.4	.3	1
L495E 226S	5.8	.3	2.2	.2	1.4	.3	10
L495E 228S	6.7	.9	1.9	.3	.5	.4	11
L495E 230S	11.2	.6	.9	.2	2.5	.4	35
L495E 232S	8.6	.4	1.0	.2	2.0	.3	21
L495E 234S	6.5	.3	.5	.4	1.0	.3	-
L495E 236S	2.3	.1	.2	.2	.2	.3	507
L495E 238S	8.6	.4	1.3	.4	2.4	.3	25
L495E 240S	3.6	.3	.7	.2	.7	.3	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L495E 260S	9.5	1.3	1.2	.4	2.3	.4	11
L495E 262S	8.8	.1	1.1	.2	2.1	.6	3
L495E 264S	9.2	.6	.8	.4	1.9	1.1	1
L495E 266S	10.2	.7	1.0	.3	1.2	.3	15
L495E 268S	8.7	.3	.4	.2	.3	.3	1
L495E 270S	9.2	.9	1.4	.2	1.4	.3	1
L495E 272S	.5	.5	.2	.4	.2	.6	1
L495E 274S	15.2	.7	1.2	.2	4.3	.5	1
L495E 276S	13.7	.6	.7	.3	4.3	.9	1
L495E 278S	11.7	.6	1.0	.4	1.3	.5	1
L495E 280S	15.9	.6	.3	.8	3.3	1.1	1
L495E 282S	12.2	.4	1.2	.2	1.7	.9	1
L495E 284S	16.5	2.1	1.6	.2	3.5	.6	1
L495E 286S	8.7	1.7	.8	.2	1.2	.9	1
L495E 288S	6.7	.7	.7	.3	2.5	.3	8
L495E 290S	10.2	.8	.6	.2	10.1	1.1	1
L495E 292S	8.3	.5	1.2	.2	5.6	.3	1
L500E 190S	7.1	.1	.9	.2	.2	.3	3
L500E 192S	9.6	.5	.4	.3	1.3	.3	1
L500E 194S	7.4	.5	.7	.2	1.0	.3	1
L500E 196S	11.7	1.0	.9	.2	1.0	.3	1
L500E 198S	8.5	1.1	1.1	.3	.2	.8	1
L500E 200S	13.7	.4	.6	.2	.2	.3	1
L500E 202S	12.1	.6	.5	.2	.2	.3	2
L500E 204S	2.2	.7	.6	.3	.3	1.9	11
L500E 206S	10.1	1.0	.5	.6	.7	1.6	1
L500E 210S	7.7	.1	.8	.5	.7	.4	9
L500E 212S	4.8	.5	.4	.2	.3	.3	1
L500E 214S	2.2	.4	.5	.2	.2	.3	1
L500E 216S	9.2	.9	.2	.2	.2	.3	9
L500E 218S	6.4	.3	.3	.2	1.4	.3	1
L500E 220S	1.4	.1	.4	.2	.5	.3	1
L500E 222S	4.7	.2	1.2	.2	5.9	.9	1
L500E 224S	6.0	.5	.8	.5	2.7	1.2	4
L500E 226S	3.5	.6	.7	.2	1.0	.3	1
L500E 230S	6.2	.1	.4	.2	.2	.8	1

SAMPLE#	As PPM	Sb PPM	Bi PPM	Ge PPM	Se PPM	Te PPM	Au* PPB
L500E 294S	10.1	.4	.7	.2	12.6	.3	1
L500E 296S	8.2	.5	.3	.2	10.8	.5	8
L500E 298S	7.8	.6	.5	.3	4.6	.3	4
L500E 300S	8.1	.3	.4	.2	7.5	.3	1
L500E 302S	9.4	.2	.3	.3	7.4	.5	1
L500E 304S	8.3	.5	.2	.2	5.5	.3	1
L500E 306S	3.0	.3	.1	.2	5.7	.3	3
L500E 308S	5.1	.3	.1	.2	3.8	.3	1
L500E 310S	2.3	.1	.4	.2	2.0	.3	4
L500E 312S	3.3	.3	.2	.2	1.0	.3	3
L500E 314S	6.6	.6	.1	.2	1.9	.3	1
L500E 316S	5.2	.3	.4	.3	16.2	.3	4
L500E 318S	8.9	.1	.5	.2	2.8	.3	8
L500E 320S	4.3	.2	.1	.2	1.3	.3	1
L500E 322S	9.0	.1	.3	.3	2.2	.4	7
L500E 324S	8.4	.6	.1	.2	1.4	.6	1
L500E 326S	10.2	.7	.3	.2	2.2	.3	4
L500E 328S	12.0	.4	.2	.4	2.0	.3	1
L500E 330S	7.2	.3	.3	.4	.9	.3	12



SCALE 1"=800'

1000 0 1000 2000 3000 4000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,388

MORAGA RESOURCES LTD.

EXPO PROJECT

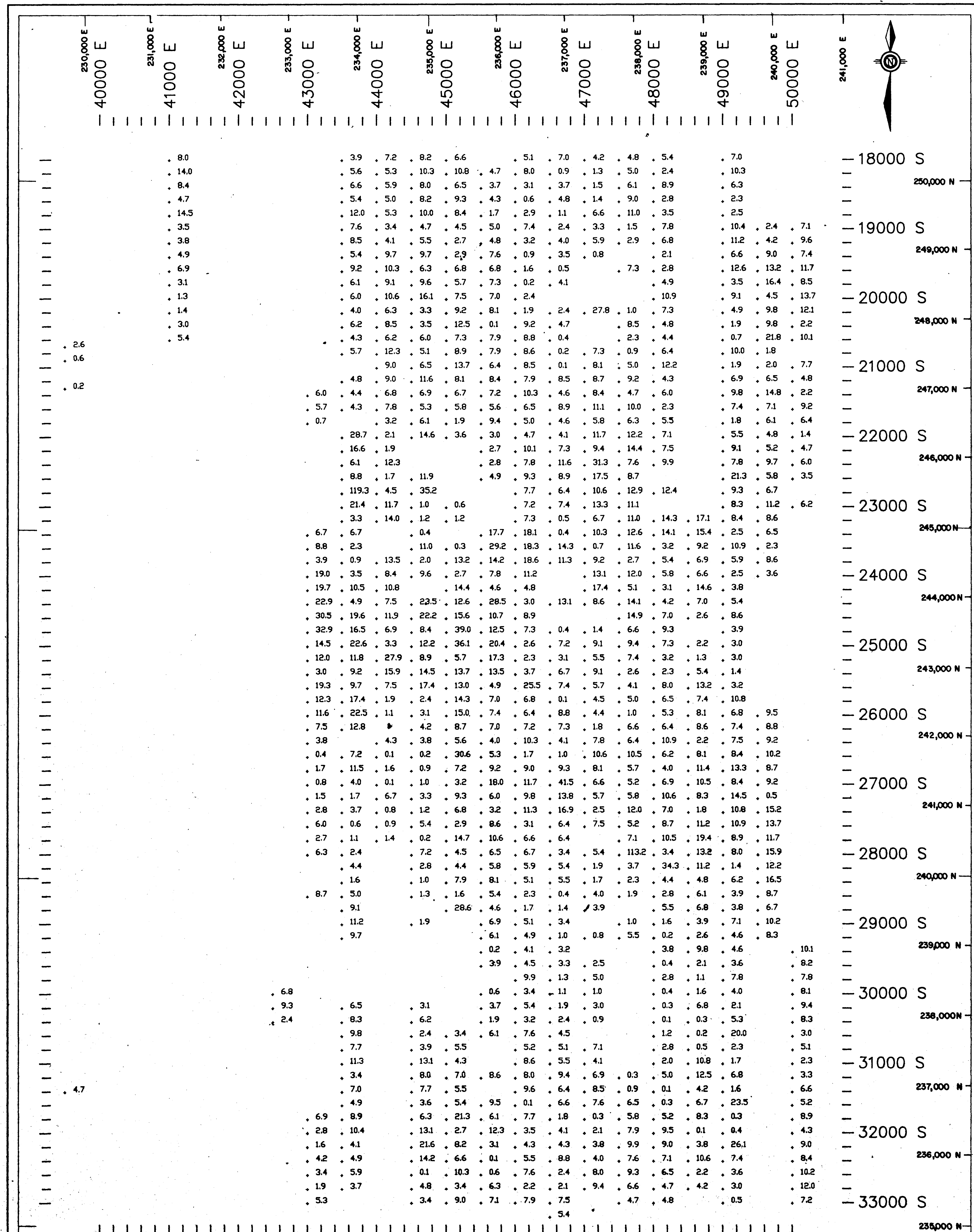
NANAIMO MINING DIVISION, B.C.

GOLD GEOCHEMISTRY

MCINTOSH MOUNTAIN AREA
RE-ASSAY OF 1968 SAMPLES

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1" = 800'	DEC., 1988	92L/12	7 a



SCALE 1"=800'

1000 0 1000 2000 3000 4000

GEOLOGICAL BRANCH ASSESSMENT REPORT

19,388

MORAGA RESOURCES LTD.

EXPO PROJECT

NANAIMO MINING DIVISION, B.C.

ARSENIC GEOCHEMISTRY

MCINTOSH MOUNTAIN AREA

RE-ASSAY OF 1968 SAMPLES

DAIWAN ENGINEERING LTD.

SCALE	DATE	NTS.	FIG.
1" = 800'	DEC., 1988	92L/12	7b


RED DOG GRID (1989)
MCINTOSH GRID (1989)
SOUTH MCINTOSH GRID (1989)
LEGEND
MAJOR FAULT (UTAH MINES - 1972).
SOIL SAMPLING: AREA BOUNDARY, ANOMALOUS PEAK (Au ppb)
APPROXIMATE ANOMALY BOUNDARY.
ROCK GEOCHEM LOCATION, ANOMALOUS Au (ppb).
1989 SOIL GRID LOCATION
GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,388
"RE-ASSAY OF SAMPLES COLLECTED BY BHP-UTAH MINES LTD. IN 1968"
MORAGA RESOURCES LTD.
EXPO PROJECT
NANAIMO MINING DIVISION, B.C.
REGIONAL SAMPLE LOCATIONS
&
GRID LOCATION MAP
DAIWAN ENGINEERING LTD.
SCALE 1: 30,000
DATE SEPT., 1989
NTS. 92L/12
FIG. 6