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## **AQUATERRE MINERAL DEVELOPMENT**

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### **ASSESSMENT REPORT ON THE CU 1 AND CU 2 CLAIMS 1993 GEOLOGICAL AND GEOCHEMICAL PROGRAM**

**Vancouver Mining Division, British Columbia**

**N.T.S. Map Area 92K/7W**

**Latitude 50° 21' N Longitude 124° 46' W**

**Claims: CU 1, CU 2**

**Owner: Aquaterre Mineral Development Ltd.  
1003, 470 Granville Street  
Vancouver, British Columbia  
V6C 1V5**

**Operator: Aquaterre Mineral Development Ltd.  
1003, 470 Granville Street  
Vancouver, British Columbia  
V6C 1V5**

by  
**M. Schatten, B.Sc.  
November 16, 1993**

**Reviewed & Approved by  
J. Kerr, P.Eng.**

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AQUATERRE MINERAL DEVELOPMENT LTD.

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<b>VANCOUVER, B.C.</b>

**CU 1 and CU 2 CLAIMS**  
Vancouver Mining Division, British Columbia

**ASSESSMENT REPORT**  
**1993 GEOLOGICAL & GEOCHEMICAL PROGRAM**  
November, 1993

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**23,231**

## SUMMARY

The Cu 1 and Cu claims were staked by Aquaterre Mineral Development Ltd. as part of a regional exploration program geared towards finding massive sulphide mineralization in roof pendant rocks.

The claims are underlain by diorite and granodiorite of the Cretaceous Coast Plutonic Complex and by volcanic and sedimentary rocks of the Lower Cretaceous Gambier Group.

A field program comprised of geological mapping, prospecting and soil and rock sampling was carried out August 7-9, 1993. 57 soil samples and 12 rock samples were collected and analyzed. Copper values in rock are to 269ppm. Soil geochemistry delineated copper, molybdenum, gold and silver anomalies of which copper-gold-silver are strongly coincident. Additional work is required to test unexplored portions of the claims particularly at higher elevations.

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## 1. INTRODUCTION

### 1.1 Location, Access and Terrain

The Cu 1 and Cu 2 claims (Figure 1) are geographically located at 50° 21'N and 124° 46'W, 175km northwest of Vancouver, British Columbia near the mouth of Toba Inlet in the southern Fiord Ranges.

Access to the property is by boat or helicopter to tidewater and then by foot up a trail for approximately 500m to the southwestern boundary of the property. Logging roads do exist at higher elevations on the claims and may also provide access by helicopter.

Elevations range from 140m up to 820m above sea level at the northwest corner of Cu 1. The topography is steep although forested in most areas. The claims were partially logged in the late 1960's and early 1970's. Stands of virgin timber with sparse to thick underbrush cover the remainder of the property.

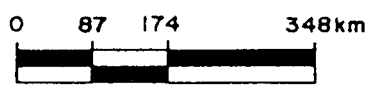
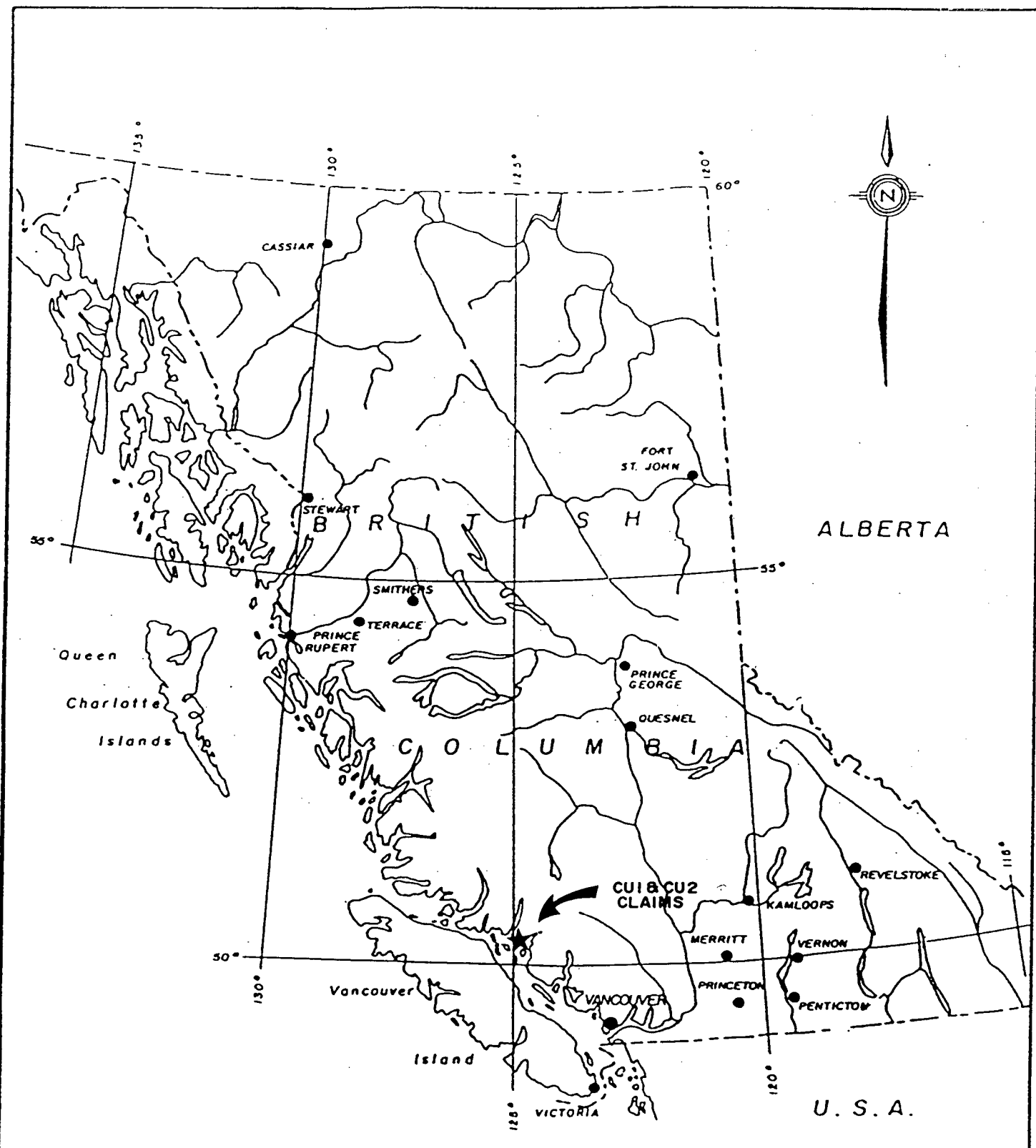
### 1.2 Claim Status

The Cu 1 and Cu 2 claims (Figure 2) are 2-post mineral claims totalling 4 units all recorded in the name of Aquaterre Mineral Development Ltd.. All claims are in good standing until 1999 (Table 1). The expiry dates reflect the dates that will be in effect upon acceptance of this report.

Table 1. Summary of Claim Particulars

<u>Claim Name</u>	<u>Units</u>	<u>Tenure No.</u>	<u>Expiry Date*</u>
Cu 1	2	320441	<del>08/09/99</del> 08/09/97
Cu 2	2	320442	<del>08/09/99</del> 08/09/97
<b>Total Units</b>	<b>4</b>		

\* Upon acceptance of this report.



SCALE 1cm:87km

**AQUATERRE MINERAL DEVELOPMENT**

**CU 1 & CU 2 CLAIMS**  
VANCOUVER MINING DIVISION, B.C.

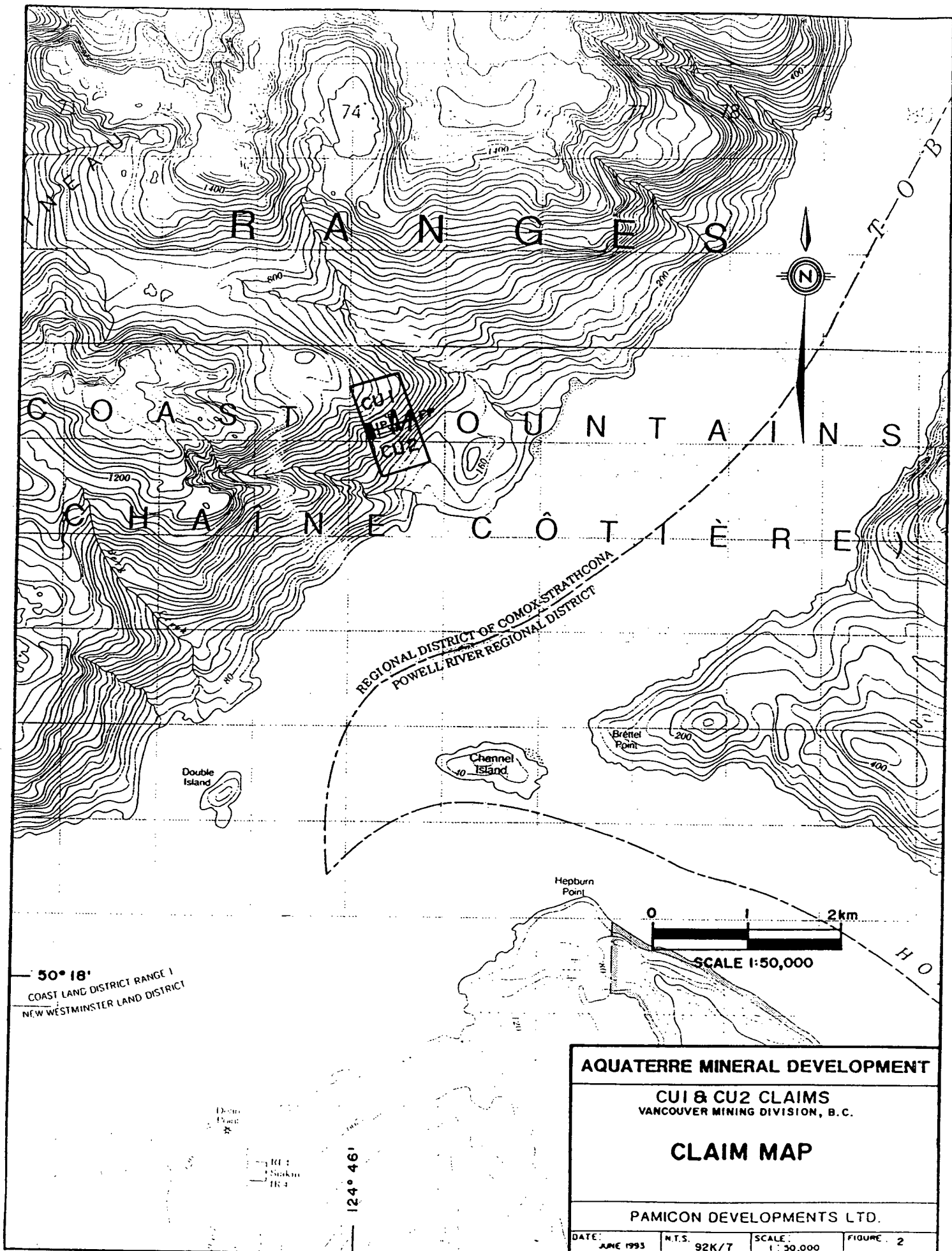
**LOCATION MAP**

Technical Work by  
PAMICON DEVELOPMENTS

Date . NOVEMBER, 1993

Scale 1CM@ 87KM

Dwg No. 1



50° 18'  
 COAST LAND DISTRICT RANGE 1  
 NEW WESTMINSTER LAND DISTRICT

124° 46'

<b>AQUATERRE MINERAL DEVELOPMENT</b>			
CUI & CU2 CLAIMS VANCOUVER MINING DIVISION, B.C.			
<b>CLAIM MAP</b>			
PAMICON DEVELOPMENTS LTD.			
DATE: JUNE 1993	N.T.S. 92K/7	SCALE: 1:50,000	FIGURE: 2



### 1.3 History

The only recorded history of work in the area was that completed by A. Raven (1987).

#### 1.3.1 Alan R. Raven (1987)

In October, 1986 and May, 1987 a brief work program was carried out on the Flo #9 to #12 claims. The Cu 1 claim covers what was previously Flo #11 and the Cu 2 claim covers Flo #12. Raven's field program was comprised of rock and soil sampling and a geological examination. A total of 29 rock samples and 44 soil samples were collected along the trail to the claims and on the claim line.

Rock geochemistry indicated that gold was associated with pyrite in the granodiorite of which the best sample ran 540ppb Au and with disseminated and vein pyrite in the volcanic roof pendant, carrying up to 280ppb Au. The strongest copper mineralization in rock (2500ppm Cu) was hosted by greenstone with massive pyrite veins. 18 soil samples were collected along the claim line and are strongly anomalous in copper (to 2050ppm) with elevated background silver.

### 1.4 1993 Work Summary

Pamicon Developments Ltd., contracted by Aquaterre Mineral Development Ltd., carried out a limited geological and geochemical program on the Cu 1 and Cu 2 claims. During a three day period, August 7-9, 1993, 2.25km of chained and contoured grid lines were established. Soil samples, collected at 50m intervals, total 57. 1.15km of the grid was geologically mapped and 12 rock samples were collected. Limited prospecting was conducted over part of the grid area. All samples were analyzed by Bondar-Clegg in North Vancouver, British Columbia for Au+9+Ba.

### 1.5 Claims Work Performed On

Cu 1	450m grid lines 11 soil samples
Cu 2	1.15km geologically mapped 1.8km grid lines 46 soil samples 12 rock samples

## 2. GEOLOGY

### 2.1.1 Regional Geology

The Cretaceous Coast Plutonic Complex tectonic belt of western British Columbia underlies the Cu 1 and Cu 2 claim area. The northwesterly elongated plutonic rocks of the belt range from gabbro to quartz monzonite, the most common are granodiorite and quartz diorite. Enclosed by the intrusive bodies are long narrow pendants of steeply dipping metasedimentary and metavolcanic rocks (Figure 3). These northwesterly striking belts are thought to represent fault slices along which horsts of plutonic rocks were thrust upward.

Roddick (1977) describes the rocks in the Bute Inlet map-area (92K) in terms of 7 narrow, discontinuous, northwesterly trending belts or pendants. The Toba Inlet to Bute Inlet area forms part of Belt 3 and underlies the Cu 1 and Cu 2 claim block.

The region is underlain by narrow bands of massive greenstone of the Lower Cretaceous Gambier Group on the west side of Toba Inlet, cut by a complex of dykes. The oldest dykes are aphanitic andesite and are cut by dacite and feldspar porphyry. To the northwest of Quantum River the metavolcanic band consists mainly of strongly shattered volcanic breccia. The angular fragments are composed of andesite to banded rhyolite. A flow breccia is intruded by quartz diorite. Surrounding the metavolcanics are granodiorite, diorite and quartz monzonite of the Quantum Pluton. A major shear zone, on the southeast shore of Bute Inlet, marks a contact between plutonic and roof pendant rocks.

### 2.1.2 Regional Mineralization

The Britannia Mine is located 33km north of Vancouver and approximately 145km southeast and along strike of the Cu 1 and Cu 2 claims. Massive sulphide ores are hosted by Mesozoic metavolcanic and metasedimentary Britannia Group rocks that form a roof pendant in the Coast Range batholith. Mineralization occurs as pyrite, chalcopyrite, sphalerite and galena in stringers or as massive replacement. During the period of 1905-1974, 55 million tons of ore grading 1.1% Cu, 0.65% Zn, 0.2oz/t Ag and 0.02oz/t Au were mined.

The Bute Inlet property, held by Galleon Mining Limited, lies 50km north of the Cu 1 and Cu 2 claims. Chalcopyrite, sphalerite, pyrrhotite and pyrite mineralization is found within sediments of the Gambier Group and is believed to represent a variably metamorphosed, recrystallized and remobilized, stratabound exhalative polymetallic sulphide deposit. Trenching exposed over a strike length of 100m mineralization grading up to 1.8% Cu, 0.3% Zn, 31.6ppm Ag and 578 ppb Au. The zone is open along strike to the northwest and to the southeast (Smith et al, 1991).

The Lois Creek Upper (Mount Diadem) showing (Riccio et al, 1983) is located roughly 65km southeast and along strike of the Cu 1 and Cu 2 claims. Mineralization is hosted by rocks of the Lower Cretaceous Gambier Group and occur in argillite at or near contacts with interbedded volcanic flows and sills. En echelon stringer sulphide comprised of pyrrhotite-sphalerite, pyrrhotite-sphalerite-galena, pyrrhotite-chalcopyrite + or - tetrahedrite and pyrrhotite-sphalerite-chalcopyrite-galena form high grade zones up to 30m wide and 120 long enclosed by low grade zones. Best grades are to 2.1% Cu, 2.5% Zn, 7.9% Pb and 359.5 grams/tonne Ag over a width of 4m.



## 2.2 Property Geology

### 2.2.1 Introduction

Limited geologic mapping (1.15 line km) was completed on the Cu 2 claim along contoured, chained grid lines on August 8-9, 1993. 12 rock samples were collected from the traverses. Figure 4 (1:1,000) shows geology and rock sample locations. Samples were analyzed by the laboratory of Bondar-Clegg in North Vancouver, British Columbia for Au+9+Ba.

The Cu 1 and Cu 2 claims are underlain by granodiorite of the Quatum Pluton and by Gambier Group volcanic and associated sedimentary rocks and lies near the contact between pendant and plutonic rocks. The following lithologic units were identified on the grid lines.

### 2.2.2 Lithologies

#### 1. Porphyritic Andesite/Basalt

This unit is seen at only a few of the mapped locations at lower contour elevations and is dark gray when fresh weathering buff and gossaned locally. The groundmass is fine-grained, andesitic to basaltic in composition and peppered with small plagioclase phenocrysts. At the 330m elevation contour, pyroxene phenocrysts show strong epidote alteration around the rims. Patchy epidote throughout the unit is common. Minor pyrite occurs sporadically.

#### 2. Diorite to Granodiorite

In outcrop the unit is coarse-grained, equigranular, speckled black and white weathering buff. The percentage of quartz is variable. Weak to moderate sericite, patchy chlorite and epidote appear to be the chief alteration products with few silicified zones. Strong, narrow gossan zones, generally less than 5m wide, were observed. The unit is strongly magnetic. Pyrite is widespread occurring as disseminations, blebs and stringers.

#### 3. Cherty Volcanics and Sediments

The unit is dark greenish gray and black with a gossanous coating. It has a fine-grained crystalline texture with rare ghosts of white (feldspar ?) phenocrysts. At line 430m elevation contour, clasts of altered intrusives are included. Minor pyrite occurs as disseminations, blebs and stringers.

### 2.2.3 Mineralization

All of the mapped units contain variable pyrite however it is strongest within the intrusive rock sequence and may be a halo that has formed in the proximity of the volcanic/sedimentary roof pendant.

The best rock sample results come from elevation contour lines 430m and 500m.

Sample 23562 - 243ppm Cu

Collected at line 430m. Dark greenish gray cherty volcanic/sediment in contact with granodiorite. Trace to 1% pyrite.

Sample 23566 - 269ppm Cu

Collected at line 500m almost due north of sample 23562. Strongly gossaned, altered, silicified diorite. 5% blebby, disseminated and stringer pyrite.

Previous work on the claims by Mr. A. Raven (1987) located mineralization in a creek bed at the 580m elevation. Disseminated pyrite occurs in greenstone and fracture-filling pyrite in nearby breccias. One rock sample collected from the showing by Mr. Raven ran 5 ppb Au, 1020ppm Cu, 3.6ppm Ag, 156ppm Zn and 14ppb Pb.

### 3. SOIL GEOCHEMISTRY

#### 3.1 Introduction

During the period of August 7-9, 1993 a grid was established and soil samples collected on the Cu 1 and Cu 2 claims (Figures 5, 6, 7). Flagged grid lines, totaling 2.25km, were run along elevation contours using an altimeter and hip chain. The 290m above sea level elevation was used as a starting point and successive contours spaced at elevations of 40m-85m were established ending at the 650m elevation. Lines vary in length from 50m-450m depending on topography. Soil sample stations were flagged and marked at 50m intervals. A soil was collected at each station and placed in a Kraft soil envelope marked with the appropriate grid coordinate. 57 soil samples, collected from the B horizon at depths of 5cm-50cm, were sent to Bondar-Clegg in North Vancouver, British Columbia for analysis of Au+9+Ba.

#### 3.2 Results

##### Copper (Figure 5)

Values above 300ppm Cu are considered anomalous and contoured on 300-500ppm, 500-1000ppm and 1000-2000ppm intervals. A large northwest-southeast trending anomaly lies between L 345m in the south and continues north to the Cu 1 and Cu 2 claim line. It is open to the east, west and north. At L430m, it is at the widest, 200m. The highest value of 2348ppm Cu lies roughly in the centre of the anomaly on L490m and 1+00E.

##### Molybdenum (Figure 6)

Analytical results show background values less than 20ppm; results of and in excess of 20ppm are considered anomalous. Contour intervals are 20-25ppm, 25-50ppm, 50-100ppm and >100ppm. Anomalous values almost entirely lie above the 345m contour line and form a single anomaly that is open to the east, west and north. It trends east-west at the 430m and 490m contours and north to northwest at higher elevations. The anomaly is up to 150m wide and extends over elevations of 345m-650m. The strongest value is 111ppm at the Cu 1 and Cu claim line at 1+50E.

##### Gold and Silver (Figure 7)

Silver is contoured at 0.5-1.0ppm and 1.0-5.0ppm intervals. Anomalous values are found over a large part of the east side of the grid. The most pronounced feature is 50m wide and falls between the 345m to 490m contour lines, enclosing greater than 1.0ppm Ag. It trends northwest-southeast in the centre and east-west on the southern and northern flanks and is open to the west. A spike high of 6.3ppm Ag at L345m and 2+00E is enclosed by values in excess of 1.0ppm.

Spotty anomalous gold, 20-170ppb dot the grid. Most are coincident with the 50m wide, 1.0ppm silver contour. A spot high of 170ppb Au occurs at L330m and 2+50W.

The gold, silver and copper anomalies are largely coincident and molybdenum is moderately coincident with copper. The central parts of the copper and silver anomalies are covered by overburden. Rock samples collected in the 300-1000ppm copper soil anomalies contain less than 300ppm Cu.

#### 4. CONCLUSION

The Cu 1 and Cu 2 claims are located near the contact between Coast Crystalline plutonic rocks and Gambier Group volcanic and sedimentary rocks. Diorite, granodiorite, volcanic and sedimentary rocks underlie the claims. Variable pyrite occurs in all units.

Soil geochemistry has delineated and confirmed a copper anomaly covering a large part of the grid that is open to the east, west and north. Values predominantly fall between 300-1000ppm Cu, a high of 2348ppm Cu lies in the centre of the anomaly. Elevated molybdenum, gold and silver are in part coincident with the copper anomaly.

The claims are located in roof pendant rocks that are favorable for hosting a massive sulphide deposit. The Britannia Mine ores and the Lois Creek Upper and Bute Inlet showings occur in similar pendant rocks. Initial soil geochemical results are encouraging. Additional geological mapping, rock and soil sampling is needed to further define mineralization in the as yet unexplored higher elevations on the claims. In addition to volcanogenic massive sulphides, the molybdenum relationship to the copper is suggestive of possible porphyry style mineralization.

5. COST STATEMENT

**FIELD CREW**

S. Todoruk - project geologist  
1 day @ \$275/day 275.00

M. Schatten - geologist  
2 days @ \$210/day 420.00

R. Kitamura  
3 days @ \$170/day 510.00

K. Hansen  
2 days @ \$170/day 340.00

E. Munroe  
2 days @ \$170/day 340.00

**ANALYTICAL**

57 soil samples @ \$14.75/sample 840.75

12 rock samples @ \$17.25/sample 207.00

**ROOM & BOARD**

Egmont Marina  
13 mandays @ \$50/man/day 650.00

**FIELD SUPPLIES**

75.00

**HELICOPTER**

Pacific Applicators - Jet Ranger 206  
August 7-9, 1993  
5.9 hours @ \$675/hr (including fuel) 3,982.50

**COMPILATION & REPORT**

M. Schatten  
4 days @ \$220/day 880.00

Photocopies and Office Supplies 60.00

**TOTAL COSTS**

**\$8,580.25**



## 6. BIBLIOGRAPHY

Riccio, L., Crowe, G., Scott, A., Matysek, P., 1983; Geological, Geochemical and Geophysical Report on the Lois 1-6, 8, 9, Fox and Diadem Mineral Claims for Anaconda Canada Explorations.

Raven, A.R. and Brownlee, D.J., 1987; Assessment Report on the Flo #9 to #12 Claims, Toba Inlet, Vancouver Mining Division, British Columbia.

Roddick, J.A., 1977; Notes on the Stratified Rocks of Bute Inlet Map-Area (excluding Vancouver and Quadra Islands), Geological Survey of Canada, Open File 480.

Roddick, J.A. and Woodsworth, G.J.; Bute Inlet Map-Area (92K), Geological Survey of Canada, Open File 480.

Smith, G.F. and Keyser, H.J., 1991; Report on the 1990 Geological and Geochemical Fieldwork on the Bute Inlet Property for Galleon Mining Limited.

## 7. STATEMENT OF QUALIFICATIONS

I, MYRA G. SCHATTEN, resident of Calgary, Province of Alberta, hereby certify as follows:

1. I am a contract geologist currently employed by Aquaterre Mineral Development Ltd. at 1003, 470 Granville Street, Vancouver, BC.
2. I was actively involved as a field geologist on the Cu 1 and Cu 2 claims during the 1993 field program and assisted in the collection of the data referred to in this report.
3. I graduated from the University of Alberta, Edmonton, Alberta, B.Sc. Geology. I have been actively involved in mineral exploration since 1987.

DATED at Vancouver, Province of British Columbia this 16th day of November, 1993.




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M.G. Schatten, B.Sc.  
Geologist

I, JOHN R. KERR, of Vancouver, British Columbia, do hereby certify that:

1. I am a member of the Association of Professional Engineers of British Columbia and a Fellow of the Geological Association of Canada.
2. I am a geologist employed by Aquaterre Mineral Development Ltd. at 1003, 470 Granville Street, Vancouver, BC.
3. I am a graduate of the University of British Columbia (1964) with a B.A.Sc. degree in Geological Engineering.
4. I have practised my profession continuously since graduation.
5. I have reviewed the contents of this report and verify the costs as reported to be true.
6. I am an officer and director of Aquaterre Mineral Development Ltd. and hold a direct and indirect interest in the securities of this company.

DATED at Vancouver, Province of British Columbia this 16th day of November, 1993.

  
*J.R. Kerr*  
J.R. Kerr, Eng.

**APPENDIX I**  
**ROCK SAMPLE DESCRIPTIONS**

Company SCHATTEN  
 Date AUG 8 + 9, 1993

Project AQUATERRE  
 Property FLO

NTS \_\_\_\_\_  
 Location Ref \_\_\_\_\_  
 Air Photo No \_\_\_\_\_

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS									
					Rock Type	Alteration	Mineralization		Au ppm	Ag ppm	Cu ppm	1%	2%	3%				
	270m EAST CONTOUR																	
3556	65m	GRAB			POR. VOLCANIC?	EPIDOTE GOSSAN			<	.3	11	5	100					
3557	235m	GRAB			DIORITE	CHLORITE EPIDOTE GOSSAN	1-2% PY TR CPY??	VUGS WITH QUARTZ + MAGNETITE	<	.2	155	<	50					
3558	275m	GRAB			DIORITE	EPIDOTE SILICIFIED GOSSAN	3% PY		<	<	19	<	34					
	345m EAST CONTOUR																	
3559	250m	GRAB			DIORITE	GOSSAN WEAK EPIDOTE	1% PY	STRONG MAGNETITE	<	.8	215	<	25					
3560	200m	GRAB			DIORITE	GOSSAN WEAK EPIDOTE	1% PY	STRONGLY MAGNETIC	<	.4	171	<	100					
3561	210m	GRAB			DIORITE	SILICIFIED EPIDOTE CHLORITE	TR-1% PY	GOSSANED	8	.4	132	<	15					
	430m EAST CONTOUR																	
3562	190m	GRAB			CHERTY SEDIMENTS		TR-1% PY	CONTACT WITH INTRUSIVE	5	0.2	243	8	13					
3563	190m	FLOAT			CHERTY SEDIMENTS	GOSSAN	3% PY ± 1% CPY	CLASTS OF ALTERED INTRUSIVE	8	0.6	120	<	75					
	500m EAST CONTOUR																	
3564	290m	GRAB			DIORITE	SILICEOUS GOSSAN	3% PY TR CPY??		<5	0.4	64	<	61					
3565	250m	GRAB			CHERT		TR PY		<5	<0.2	22	6	20					
3566	200m	GRAB			DIORITE	SILICEOUS	5% PY TR CPY		11	1.0	269	<	39					
	330m WEST CONTOUR																	
3567	10m	GRAB			POR. VOLCANIC	SILICEOUS EPIDOTE			<5	<0.2	11	4	37					

**APPENDIX II**  
**SOIL SAMPLE DESCRIPTIONS**



Sampler E. Munroe  
Date Aug 7/93

Project Aquaterra  
Property Flo River

NTS  
Location Ref \_\_\_\_\_  
Air Photo No \_\_\_\_\_

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION			SLOPE	VEG	ADDITIONAL OBSERVATIONS / REMARKS	ASSAYS		
				Colour	Texture	Drainage				Au ppb	Ag ppb	Cu ppm
Claimline	0+00E	30 <sup>CM</sup>	B	OB	SAND pebbles		15°	Trees				
	0+50E	20cm	B	OB	silt pebbles		15°	"				
	1+00E	15cm	B	OB	silt pebbles		15°	"				
	1+50E	25cm	B	OB	SAND pebbles		20°	"				
	2+00E	35cm	BC	BG	SAND pebbles		20°	"				
	2+50E	30cm	B	B	SAND pebbles		20°	"				
	3+00E	25cm	B	BG	SAND pebbles		20°	"				
	3+50E	35cm	B	OB	SAND pebbles		20°	"				
	4+00E	45cm	B	BG	SAND pebbles		20°	"				
Claimline	4+50E	35cm	B	OB	SAND pebbles		5°	"				
CONTOUR 1400	Trail	35cm	B	OB	clay pebbles		20°	"				
CONTOUR 1100	Trail	40cm	B	OB	SAND pebbles		15°	"				
CONTOUR 900	0+00W	30cm	B	RB	SAND pebbles		5°	"				
	0+50W	15cm	B	OB	ORGANIC SAND pebbles		5°	"				
	1+00W	40cm	B	B	silt pebbles		5°	"	- Very rocky			
	1+50W	25cm	B	OB	SAND pebbles		5°	"				
	2+00W	30cm	B	OB	SAND pebbles		5°	"	- Sampled 10 M West			
	2+50W	40cm	B	OB	silt pebbles		5°	"				
	3+00W	35cm	B	OB	silt pebbles		5°	"				
	3+50W	35cm	B	OB	silt pebbles		5°	"				
CONTOUR 400	4+00W	30cm	B	OB	clay pebbles		5°	+ REES	50M From creek			
CONTOUR 400	4+50W	20cm	B	OB	clay pebbles		5°	+ REES	50M From creek			









**APPENDIX III**  
**ANALYTICAL PROCEDURES**



Soil Samples

1. All field material will be dried at 60 oC.
2. The dried field material will be screened for the - 80 mesh particle fraction.
3. The - 80 mesh material will be homogenized, bagged and labelled.
4. All sample pulps will be stored for one year free of charge, after which Bondar-Clegg's routine storage charges will apply.

Your cost for soil sample preparation/sample: \$ 1.25

Please note: The oversize fraction will be retained only upon request.

Analytical Determinations

Option 1 - Au + 9 + Ba

Determination of Au using Fire Assay Lead Collection - Flame Atomic Absorption measurement, test sample weight of 30g, detection level of 5 ppb.

Ag.....HCl/HNO <sub>3</sub> Extraction/ICP	0.2 ppm
Cu.....HCl/HNO <sub>3</sub> Extraction/ICP	1.0 ppm
As.....HCl/HNO <sub>3</sub> Extraction/ICP	5.0 ppm
Sb.....HCl/HNO <sub>3</sub> Extraction/ICP	5.0 ppm
Zn.....HCl/HNO <sub>3</sub> Extraction/ICP	1.0 ppm
Pb.....HCl/HNO <sub>3</sub> Extraction/ICP	2.0 ppm
Mo.....HCl/HNO <sub>3</sub> Extraction/ICP	1.0 ppm
Ba.....HCl/HNO <sub>3</sub> Extraction/ICP	2.0 ppm
Hg.....HCl/HNO <sub>3</sub> Extr./Cold Vapour AAS	0.01 ppm

Your cost/sample, not including sample preparation: \$ 13.50

Analytical Determinations Cont.

Option 2

Determination of Au using Fire Assay Lead Collection-Flame Atomic Absorption measurement, employing a test sample weight of 10 g and providing a detection level of 5 ppb.

Your cost/sample, not including sample preparation \$ 6.75

Determination of Cu using an aqua-regia extraction and Flame AAS measurement, detection limits of 1 ppm.

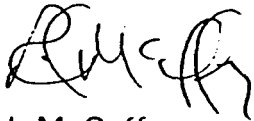
Your cost/sample, not including sample preparation \$ 1.75

Prices will be effective June 10, 1993 and will be honoured until December 31st, 1993. All prices are in Canadian funds.

Bondar-Clegg will supply all quality control data obtained during analysis, e.g., standards, repeats, blanks etc. This service will be provided free of charge.

If you should require any further information regarding our analytical services, please do not hesitate to contact me. Thank you for considering Bondar-Clegg for your analytical work.

Sincerely,



Rick McCaffrey  
Manager, Geochem Laboratory

**APPENDIX IV**  
**ANALYTICAL RESULTS**



REPORT: V93-00794.0 ( COMPLETE )

DATE PRINTED: 21-AUG-93

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	As PPM	Sb PPM	Bi PPM	Hg PPM	Ba PPM
S1 FLO 0+00E		<5	1.5	185	55	103	18	37	<5	14	0.078	37
S1 FLO 0+50E		9	0.9	255	12	84	20	42	<5	11	0.087	45
S1 FLO 1+00E		6	1.1	401	14	95	35	51	<5	13	0.114	30
S1 FLO 1+50E		54	1.0	217	9	106	111	62	<5	9	0.205	33
S1 FLO 2+00E		<5	0.7	197	4	119	65	58	<5	7	0.158	120
S1 FLO 2+50E		9	0.4	292	9	80	19	45	<5	6	0.069	68
S1 FLO 3+00E		6	1.0	714	42	173	69	64	<5	9	0.227	54
S1 FLO 290 STN.01		<5	0.6	75	13	60	7	21	<5	<5	0.108	38
S1 FLO 290 STN.02		<5	0.5	18	12	54	3	25	<5	<5	0.085	36
S1 FLO 290 STN.03		<5	1.0	192	6	71	18	20	<5	11	0.094	35
S1 FLO 290 STN.04		<5	1.1	250	11	136	15	29	<5	13	0.143	64
S1 FLO 290 STN.05		<5	<0.2	26	2	35	<1	<5	<5	<5	0.073	38
S1 FLO 290 STN.06		<5	0.7	155	13	156	9	29	<5	11	0.118	68
S1 FLO 290 STN.07		<5	0.4	60	9	101	6	17	<5	9	0.063	51
S1 FLO 345 STN.01		18	0.6	212	18	76	9	25	<5	8	0.169	36
S1 FLO 345 STN.02		12	1.1	248	19	84	7	18	<5	9	0.201	80
S1 FLO 345 STN.03		6	0.7	85	14	51	10	13	<5	10	0.126	34
S1 FLO 345 STN.04		19	0.8	421	9	139	29	30	<5	14	0.081	35
S1 FLO 345 STN.05		36	6.3	648	68	233	16	24	<5	22	0.130	51
S1 FLO 345 STN.06		11	1.4	558	11	132	15	51	<5	10	0.132	52
S1 FLO 345 STN.07		6	0.8	253	12	179	11	46	<5	6	0.082	39
S1 FLO 420 STN.01		30	1.4	1013	50	125	53	73	<5	37	0.181	42
S1 FLO 420 STN.02		14	1.5	1010	4	107	29	54	<5	31	0.105	52
S1 FLO 420 STN.03		17	1.0	340	11	199	16	40	<5	8	0.144	92
S1 FLO L650-01		30	1.3	204	24	33	3	42	<5	<5	0.297	25
S1 FLO L650-02		6	0.5	122	11	71	30	37	<5	6	0.126	50
T1 J1 623026		<5	0.8	180	20	139	6	33	<5	<5	0.082	83

↑  
Cu 1+  
Cu 2  
↓

REPORT: V93-00815.0 ( COMPLETE )

DATE PRINTED: 30-AUG-93

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	As PPM	Sb PPM	Bi PPM	Hg PPM	Ba PPM
T1 ALF CLAIM LINE 0+00E		60	<0.2	10	7	37	<1	<5	<5	<5	0.070	36
T1 ALF CLAIM LINE 0+50E		15	0.3	22	12	44	2	<5	<5	<5	0.060	92
T1 ALF CLAIM LINE 1+00E		8	<0.2	28	5	51	4	<5	<5	<5	0.070	61
T1 ALF CLAIM LINE 1+50E		12	<0.2	69	11	71	4	<5	<5	<5	<0.010	218
T1 ALF CLAIM LINE 2+00E		254	<0.2	38	7	45	3	<5	<5	<5	0.096	40
T1 ALF CLAIM LINE 2+50E		15	<0.2	18	11	49	.2	<5	<5	<5	0.160	47
T1 ALF CLAIM LINE 3+00E		60	<0.2	16	12	42	2	<5	<5	<5	0.084	52
T1 ALF LO+40N 3+50E		23	<0.2	39	6	70	4	<5	<5	<5	0.064	108
T1 ALF LO+40N 4+00E		150	<0.2	39	12	68	4	<5	<5	<5	0.051	110
T1 ALF LO+40N 4+50E		8	<0.2	72	83	71	3	<5	<5	<5	0.077	96
T1 ALF LO+40N 5+00E		18	<0.2	46	19	56	4	<5	<5	<5	0.058	116
T1 ALF LO+40N 5+50E		15	<0.2	14	9	36	<1	<5	<5	<5	0.105	62
T1 ALF LO+40N 6+00E		<5	<0.2	51	14	70	2	<5	<5	<5	0.077	57
T1 ALF LO+40N 6+50E		<5	<0.2	69	13	59	5	<5	<5	6	0.044	106
T1 FLO 330MW 01		9	<0.2	34	11	110	4	<5	<5	<5	0.037	63
T1 FLO L3+30M 0+00W		36	<0.2	51	11	77	8	<5	<5	7	0.075	41
T1 FLO L3+30M 0+50W		32	<0.2	6	9	37	4	<5	<5	<5	0.040	18
T1 FLO L3+30M 1+00W		15	<0.2	14	21	68	2	<5	<5	<5	0.216	69
T1 FLO L3+30M 1+50W		<5	<0.2	8	4	36	2	<5	<5	<5	0.050	38
T1 FLO L3+30M 2+00WA		<5	<0.2	19	10	67	3	<5	<5	<5	0.047	37
T1 FLO L3+30M 2+00WB		170	<0.2	6	6	40	2	<5	<5	<5	0.030	28
T1 FLO L3+30M 3+00W		6	<0.2	23	10	118	5	<5	<5	<5	0.068	39
T1 FLO L4+30M 1+50E		20	1.3	683	10	144	20	<5	<5	12	0.196	38
T1 FLO L4+30M 2+00E		<5	0.2	498	10	144	15	<5	<5	11	0.161	65
T1 FLO L4+30M 2+50E		6	<0.2	223	30	133	11	<5	<5	19	0.122	73
T1 FLO L4+90M 0+00E		<5	<0.2	124	7	105	12	<5	<5	12	0.061	60
T1 FLO L4+90M 0+50E		<5	<0.2	396	9	180	23	<5	<5	19	0.124	77
T1 FLO L4+90M 1+00E		32	1.0	2348	11	319	27	<5	<5	11	0.127	165
T1 FLO L4+90M 1+50E		6	0.4	947	8	169	36	<5	<5	19	0.177	33
T1 FLO L4+90M 2+00E		15	0.2	360	12	145	47	<5	<5	16	0.101	49
T1 FLO L900 0+00W		15	0.4	104	17	90	9	<5	<5	<5	0.132	31
T1 FLO L900 0+50W		<5	<0.2	87	9	137	4	<5	<5	<5	0.162	71
T1 FLO L900 1+00W		10	1.3	246	21	284	7	<5	<5	7	0.110	122
T1 FLO L900 1+50W		<5	<0.2	55	15	173	5	<5	<5	6	0.127	40
T1 FLO L900 2+00W		<5	<0.2	17	11	80	6	<5	<5	<5	0.030	35
T1 FLO L900 2+50W		<5	<0.2	30	13	94	5	<5	<5	7	0.142	33
T1 FLO L900 3+00W		<5	<0.2	22	10	79	5	<5	<5	5	0.142	41
T1 FLO L900 3+50W		6	<0.2	15	7	53	3	<5	<5	<5	0.035	33
T1 FLO L900 4+00W		12	<0.2	34	9	65	3	<5	<5	<5	0.069	36
T1 FLO L900 4+50W		<5	<0.2	37	10	66	4	<5	<5	<5	0.078	35

↑  
ALF CLAIMS  
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Cu1 & Cu2

REPORT: V93-00815.0 ( COMPLETE )

DATE PRINTED: 30-AUG-93

PROJECT: NONE GIVEN

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	As PPM	Sb PPM	Bi PPM	Hg PPM	Ba PPM
T1 FLO C/L 3+50E		<5	<0.2	163	21	122	12	<5	<5	6	0.151	52
T1 FLO C/L 4+00E	<i>Cu1+</i>	14	<0.2	79	16	143	7	<5	<5	<5	0.137	79
T1 FLO C/L 5+00E		9	<0.2	169	19	260	20	<5	<5	11	0.149	98
T1 FLO TRAIL 1100	<i>Cu2</i>	<5	0.4	92	6	71	7	<5	<5	7	0.084	45
T1 FLO TRAIL 1400		<5	<0.2	221	8	152	28	<5	<5	14	0.083	91
T1 ROADZONEBL 0+00 0+00		<5	<0.2	20	11	34	5	<5	<5	<5	0.055	30

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PROJECT: NONE GIVEN

PAGE

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	As PPM	Sb PPM	Bi PPM	Hg PPM	Ba PPM	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3 PCT	MnO PCT	MgO PCT	BaO PCT	CaO PCT	Na2O PCT	K2O PCT	LOI PCT	Cr2O3 PCT	P2O5 PCT	Total S PCT	Tot PCT	
23449		<5	<0.2	6	<2	92	3	9	<5	<5	<0.10	36																
23450		6	0.3	81	4	50	4	35	<5	<5	0.162	88																
23551		<5	<0.2	57	4	55	2	24	<5	<5	<0.10	201																
23552		<5	0.6	34	3	77	4	29	<5	<5	<0.10	73																
23553		<5	<0.2	7	7	39	1	19	<5	<5	<0.10	126	ALF															
23554		<5	0.3	27	6	25	7	11	<5	<5	<0.10	90																
23555		120	2.9	1264	<2	65	3	16	<5	<5	0.011	277																
23556		<5	0.3	11	3	100	2	8	<5	<5	<0.10	37																
23557		<5	0.2	155	<2	52	2	<5	<5	<5	<0.10	22																
23558		<5	<0.2	19	<2	34	6	7	<5	<5	<0.10	38	Cu1+															
23559		<5	0.8	215	3	68	3	7	<5	5	<0.10	53	Cu2															
23560		<5	<0.2	174	2	193	3	<5	<5	<5	<0.10	53																
23561		8	0.4	132	<2	95	6	<5	<5	13	<0.10	30																
623011		<5	<0.2	15	<2	16	3	7	<5	<5	<0.10	55																
623012		<5	<0.2	68	<2	17	2	<5	<5	<5	0.019	62																
623013		<5	0.5	10	<2	77	16	15	<5	7	0.014	13																
623014		<5	0.3	40	<2	33	4	5	<5	<5	0.029	14																
623015		<5	0.4	50	<2	42	3	<5	<5	<5	<0.10	25																
623016		<5	0.3	40	<2	44	5	<5	<5	<5	<0.10	23																
623017		<5	0.4	105	<2	33	4	<5	<5	<5	<0.10	25																
623018		<5	0.5	16	<2	27	4	<5	<5	<5	<0.10	14																
623019		<5	0.5	8	<2	34	4	<5	<5	<5	<0.10	16																
623020		<5	0.3	32	<2	31	3	12	<5	<5	<0.10	39																
623021		<5	0.2	126	<2	24	3	18	<5	<5	0.012	31																
623022		<5	0.3	119	<2	24	3	14	<5	<5	<0.10	18																
623023		<5	0.3	14	<2	39	3	11	<5	<5	<0.10	25																
623024		<5	0.2	4	<2	43	3	13	<5	<5	<0.10	33																
623025		<5	0.6	84	<2	31	7	<5	<5	11	<0.10	4																
623027		<5	1.5	510	8	485	4	16	<5	<5	<0.10	100	62.64	0.68	14.62	7.14	0.16	1.84	0.044	8.53	0.75	1.43	1.79	0.04	0.17	99.84	0.05	
623028		<5	3.5	1581	5	755	3	18	<5	<5	<0.10	98	58.38	0.68	17.44	8.18	0.14	2.32	0.045	7.22	1.02	1.91	2.24	0.03	0.07	99.68	0.05	

REPORT: V93-00813.0 ( COMPLETE )

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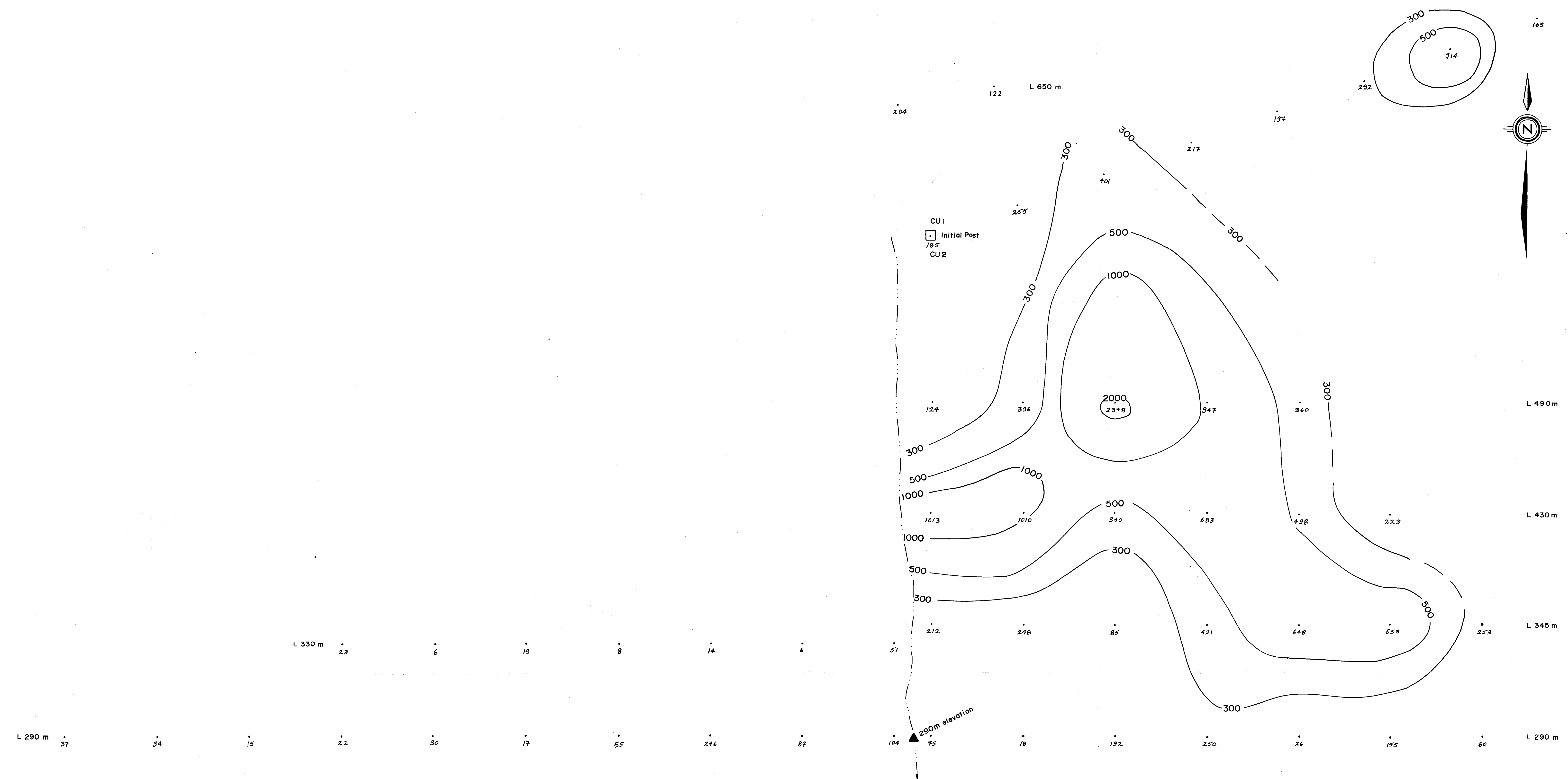
PROJECT: NONE GIVEN

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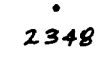
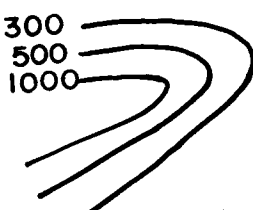
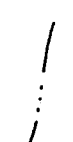
SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3 PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	Total PCT	BaO PCT	Cr2O3 PCT	S Tot PCT	Au PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	As PPM	Sb PPM	Bi PPM	Hg PPM	Ba PPM
23562																	5	0.2	243	8	43	3	29	<5	7	0.016	69
23563																	8	0.6	120	<2	75	2	33	<5	<5	<.010	90
23564																	<5	0.4	64	<2	61	3	15	<5	<5	<.010	30
23565																	<5	<0.2	22	6	20	3	7	<5	<5	0.018	64
23566																	11	1.0	269	<2	39	4	6	<5	13	<.010	86
23567																	<5	<0.2	11	4	97	<1	12	<5	<5	<.010	97
23575																	30	0.4	300	5	47	15	39	<5	<5	0.021	178
23576																	24	8.7	1969	168	6419	<1	11	<5	<5	<.010	25
23578																	<5	0.8	131	6	278	10	<5	<5	<.023	52	
23579																	<5	0.7	65	<2	113	2	17	<5	<5	0.012	38
23580																	<5	0.5	40	<2	47	1	<5	<5	<.015	35	
23582																	19	1.2	25	6	26	5	<5	<5	<.026	25	
23583																	7	0.9	48	<2	98	3	9	<5	<5	<.010	124
23584																	<5	0.7	235	5	26	3	132	19	<5	<.010	95
23585																	<5	0.4	22	5	27	2	46	<5	<5	<.010	136
25241																	15	1.2	67	<2	35	6	<5	<5	5	<.010	18
25242																	<5	0.5	47	4	24	3	10	<5	<5	0.014	64
25243																	<5	0.5	52	3	45	2	8	<5	<5	<.010	19
25244																	5	1.1	68	<2	191	5	39	<5	<5	<.010	17
25245																	16	0.9	128	6	203	5	36	<5	<5	<.010	24
25246																	6	0.8	96	6	175	4	96	9	<5	<.010	41
25256																	<5	0.4	55	<2	48	3	12	<5	<5	<.010	37
25257																	11	0.6	35	4	405	5	54	8	<5	<.010	30
25258																	9	0.2	9	5	75	2	19	<5	<5	0.011	88
28016																	40	0.8	413	4	16	7	13	<5	<5	<.010	106
28026		79.74	0.57	8.01	4.95	0.01	0.67	0.85	0.74	1.78	0.22	3.04	100.71	0.095	0.04	2.37	<5	0.2	33	<2	13	7	9	<5	<5	<.010	38
28030																	<5	0.6	209	<2	24	2	31	5	<5	<.010	192
28051		53.74	1.11	16.74	7.98	0.10	4.73	5.15	3.63	1.03	0.44	3.60	98.34	0.083	0.01	0.48	<5	0.2	79	3	71	3	35	<5	<5	<.010	94
28052		52.46	0.76	15.63	9.15	0.15	6.83	5.21	2.65	1.13	<.03	4.44	98.56	0.071	0.07	0.08	<5	0.2	1994	5	654	3	68	9	<5	<.010	61
28053		36.80	0.50	5.59	37.22	0.08	2.01	0.58	0.83	0.50	<.03	14.29	98.53	0.104	0.03	18.23	1393	49.2	>20000	1076	8688	7	64	6	<5	0.533	7

*Cu 1 &  
Cu 2*

*ALF*

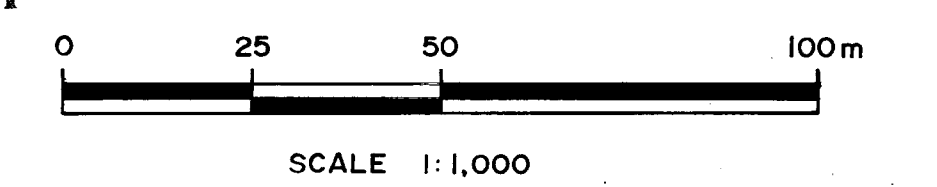


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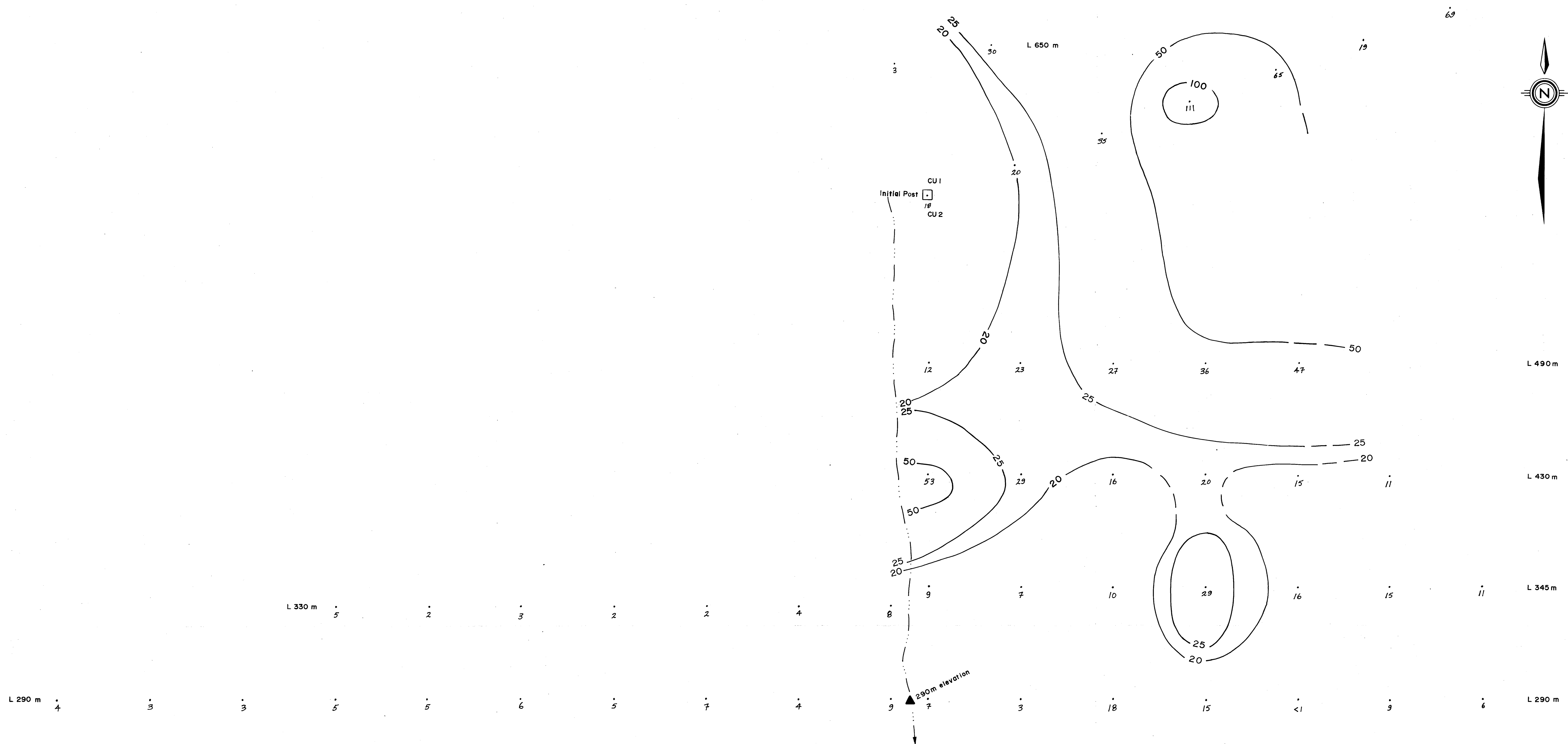
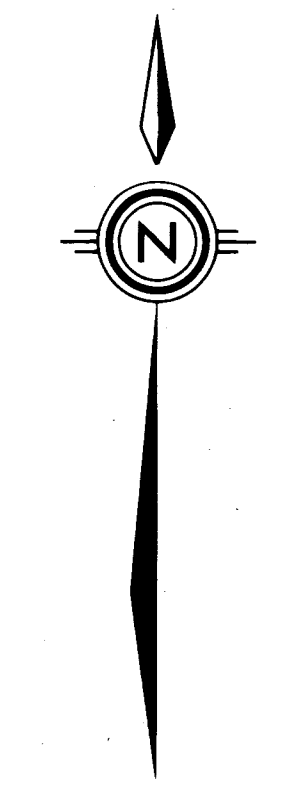
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Cu ppm
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 Contour Intervals
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**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

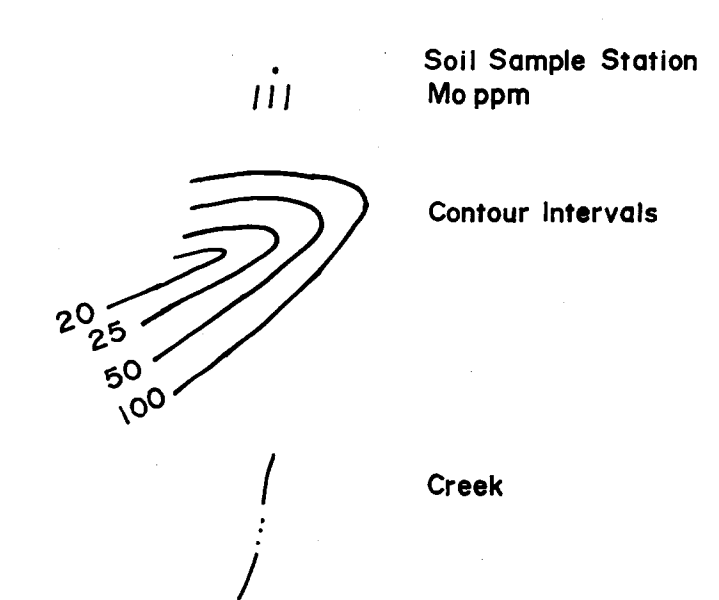
23,231



AQUATERRE MINERAL DEVELOPMENT LTD.	
CUI & CU2 CLAIMS <small>VANCOUVER MINING DIVISION, BC</small>	
<b>COPPER IN SOILS</b>	
<small>TECHNICAL WORK BY:</small> PAMICON DEVELOPMENTS LTD.	
<small>N.T.S. :</small> 92K/7W	<small>SCALE :</small> 1:1,000
<small>DATE :</small> NOVEMBER, 1993	<small>FIGURE :</small> 5

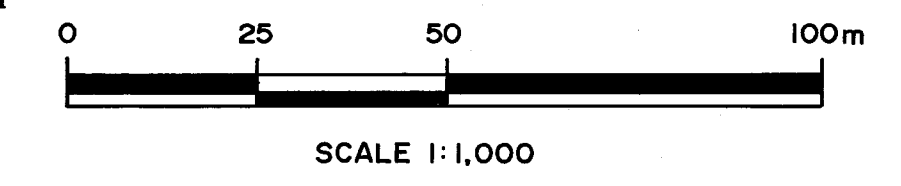


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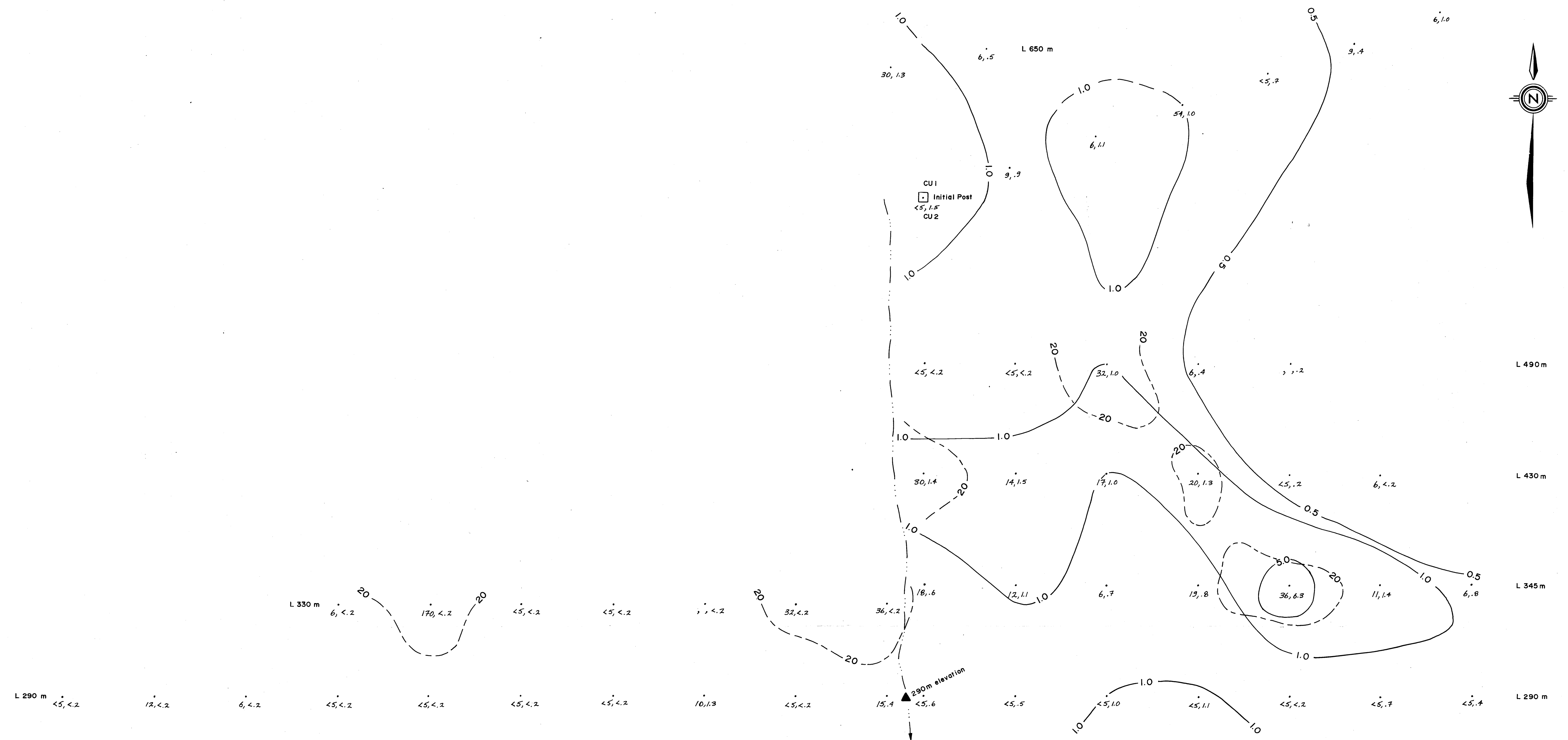
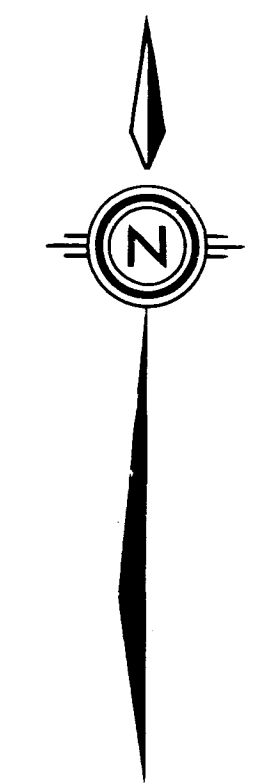


**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

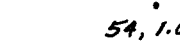

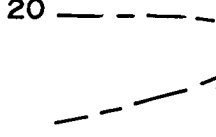

**23,231**



AQUATERRE MINERAL DEVELOPMENT LTD.	
CU1 & CU2 CLAIMS VANCOUVER MINING DIVISION, BC	
<b>MOLYBDENUM IN SOILS</b>	
TECHNICAL WORK BY:	PAMICON DEVELOPMENTS LTD.
N.T.S.:	92K/7W SCALE: 1:1,000
DATE:	NOVEMBER, 1993 FIGURE: 6

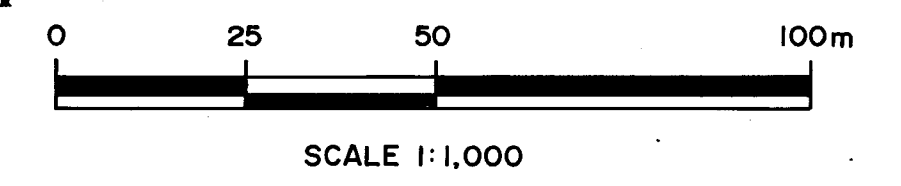


**LEGEND**

-  Soil Sample Station  
Au ppb, Ag ppm
-  Silver Contours
-  Gold Contour
-  Creek

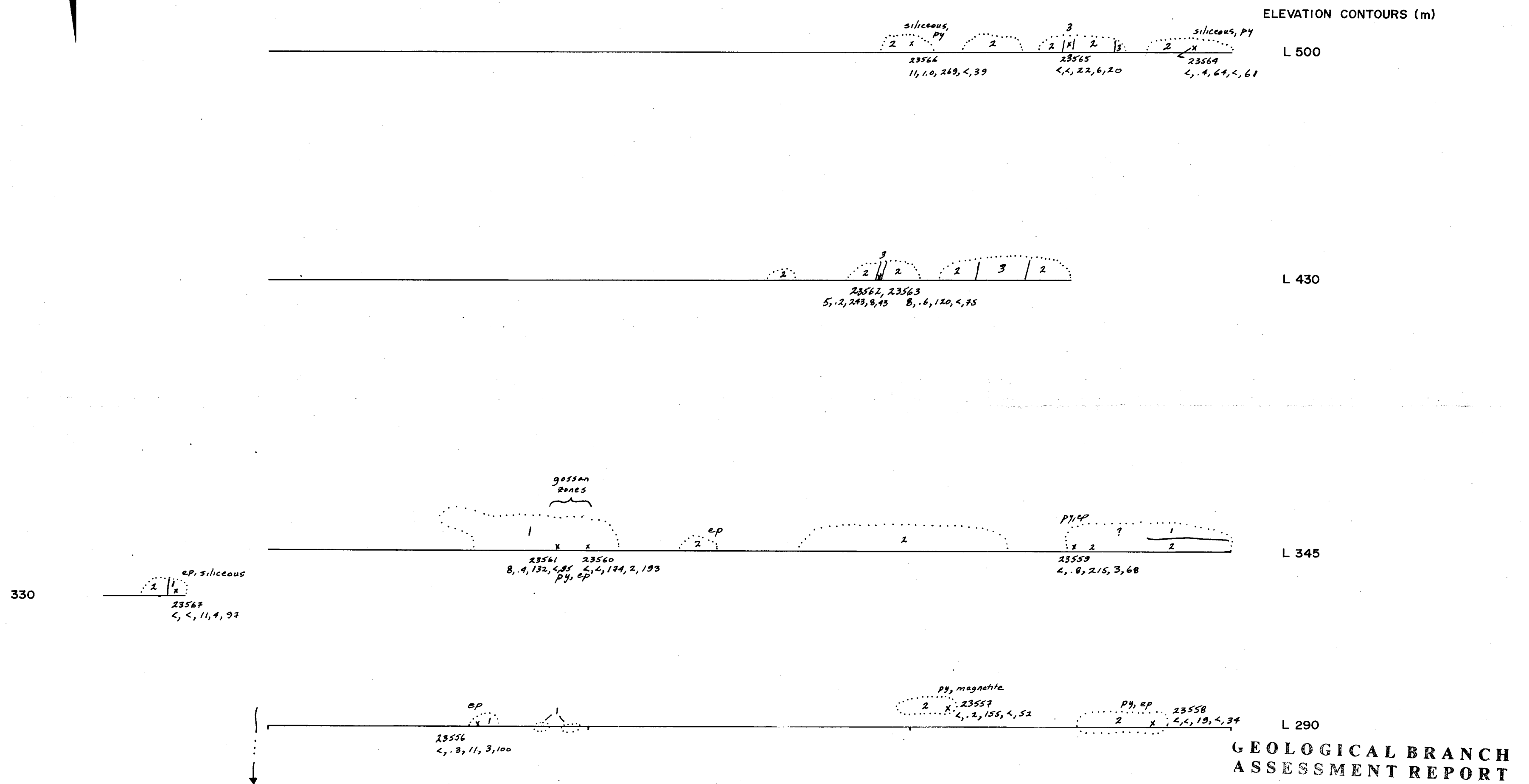
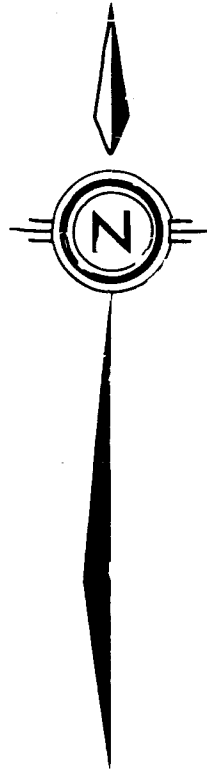
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

# 23,231



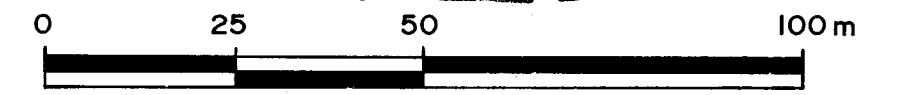
AQUATERRE MINERAL DEVELOPMENT LTD.	
CU1 & CU2 CLAIMS VANCOUVER MINING DIVISION, BC	
<b>GOLD &amp; SILVER IN SOILS</b>	
TECHNICAL WORK BY: PAMICON DEVELOPMENTS LTD.	
N.T.S. : 92K/7W	SCALE : 1:1,000
DATE : NOVEMBER, 1993	FIGURE : 7





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

23,231



Scale 1:1,000

LEGEND

- |                         |                                                                                                            |                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>LITHOLOGIC UNITS</b> |                                                                                                            | OUTCROP                                                          |
| 1                       | PORPHYRITIC ANDESITE/BASALT<br>DARK GREY WITH PLAGIOCLASE OR PYROXENE PHENOCRYSTS. LOCAL EPIDOTE & GOSSAN. | x ROCK SAMPLE LOCATION<br>Au ppb, Ag ppm, Cu ppm, Pb ppm, Zn ppm |
| 2                       | DIORITE/GRANODIORITE<br>COARSE-GRAINED SPECKLED BLACK & WHITE. OFTEN GOSSANED, STRONGLY MAGNETIC, PYRITIC. | CREEK                                                            |
| 3                       | CHERTY VOLCANICS & SEDIMENTS<br>DARK GREENISH GREY & BLACK. PYRITIC.                                       | ep EPIDOTE<br>py PYRITE                                          |

AQUATERRE MINERAL DEVELOPMENT LTD.

FLO PROSPECT - CU 1 & 2 CLAIMS  
Vancouver Mining Division, BC

GEOLOGY

TECHNICAL WORK BY:	PAMICON DEVELOPMENTS LTD.	
NTS:	92K/7W	FIGURE:
SCALE:	1:1,000	DATE: AUGUST, 1993