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1989 GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE
SHAKE 1-4 CLAIMS

FILMED

Located in the Telegraph Creek Area
Liard Mining Division
NTS 104G/13E
57° 49' North Latitude
131° 36' West Longitude

-prepared for-
CANDELA RESOURCES LTD.

-prepared by-
David A. Caulfield, F.G.A.C.

September, 1989

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GEOLoGICAL BRANCH
ASSESSMENT REPORT

1989 GEOLOGICAL AND GEOCHEMICAL REPORT ON THE SHAKE 1-4 CLAIMS

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1.0 INTRODUCTION

The Shake 1-4 claims were staked in 1988 to cover favorable geology and gossans on Rugged Mountain, approximately 28 kilometers southwest of Telegraph Creek in northwestern British Columbia (Figure 1). The geological similarity to the Galore Creek, Iskut River, Sulphurets and Stewart mining camps to the south and the area's potential for precious metal mineralization have sparked renewed exploration interest throughout the area.

Reconnaissance exploration, consisting of geological mapping, prospecting and geochemical sampling, was carried out over the Shake 1-4 property during June of 1989. Equity Engineering Ltd. conducted this program for Candela Resources Ltd. and has been retained to report on the results of the fieldwork.

2.0 LIST OF CLAIMS

Records of the British Columbia Ministry of Energy, Mines and Petroleum Resources indicate that the following claims (Figure 2) are owned by Continental Gold Corp. Separate documents indicate that they are under option to Candela Resources Ltd.

Claim Name	Record Number	No. of Units	Record Date	Expiry Year
Shake 1	4695	20	June 27, 1988	1989
Shake 2	4696	20	June 27, 1988	1989
Shake 3	4697	20	June 27, 1988	1989
Shake 4	4698	20	June 27, 1988	1989
		80		

The position of the legal corner posts for the Shake 1-4 claims has not been verified by the author. The Shake 1-4 claims partially overlap the previously-staked Canyon 25 claim, resulting in the loss of almost 20 units.

PROPERTY LOCATION



CANDELA RESOURCES LTD.

SHAKE I-4 CLAIM GROUP

PROPERTY LOCATION MAP

0 100 200 MILES
0 100 200 KILOMETRES

EQUITY ENGINEERING LTD

Drawn J.W.	NTS 104G/13E	Date July, 1989	FIG. No. 1
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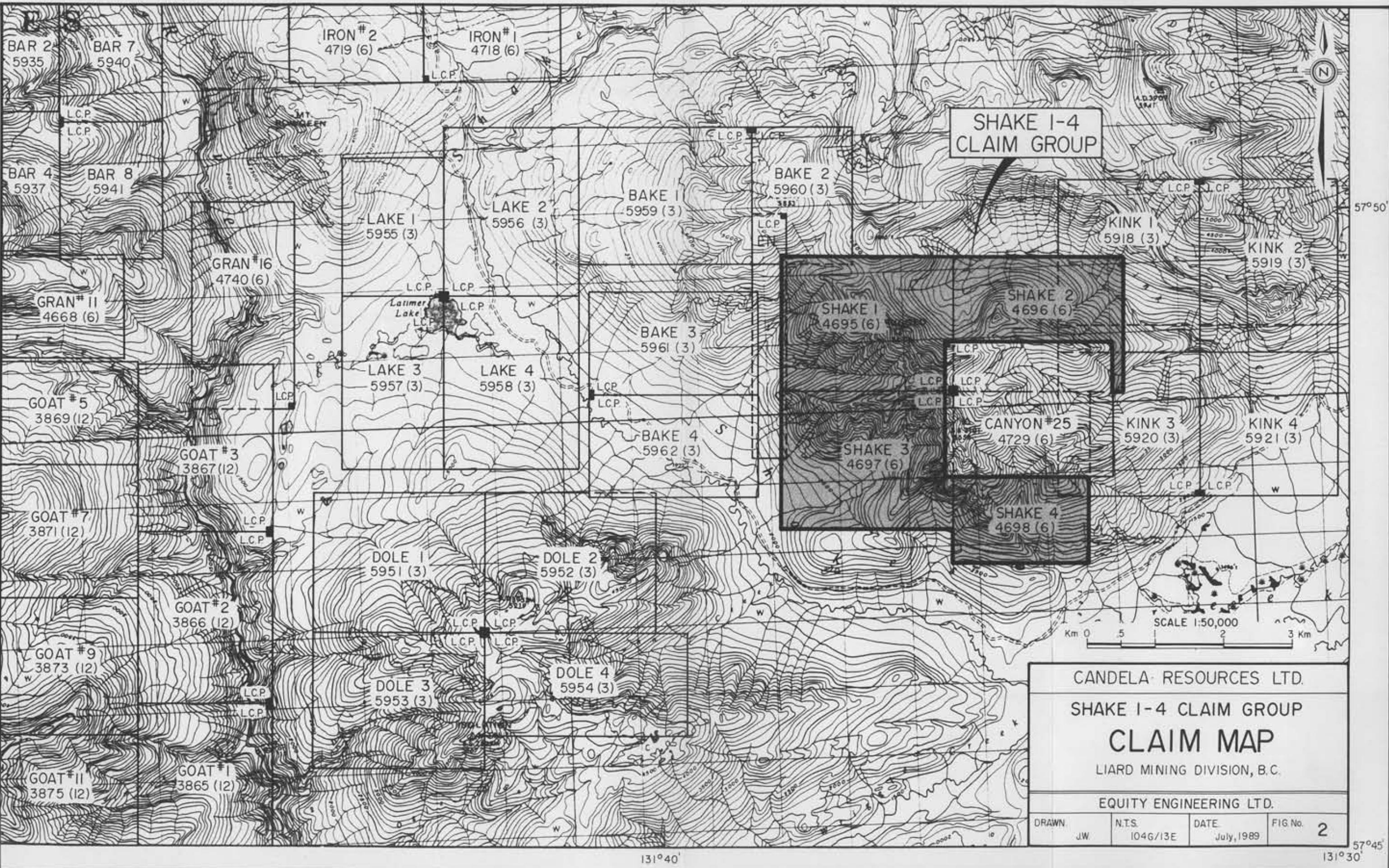
3.0 LOCATION, ACCESS AND GEOGRAPHY

The Shake 1-4 claims are located within the Coast Range Mountains approximately 28 kilometers southwest of Telegraph Creek in northwestern British Columbia (Figure 1). They lie within the Liard Mining Division, centered at 57° 49' north latitude and 131° 36' west longitude.

A secondary road extends sixteen kilometers south of Telegraph Creek to Glenora on the Stikine River. An access road suitable for four-wheel drive vehicles has been constructed southwest from Glenora to the site of a placer mining camp on the Barrington River, passing within ten kilometers of the Shake property. A cat road was built in the 1960's up Shake Creek from the Barrington River road, passing within a few hundred meters of the southwest corner of the Shake 3 claim. This cat road would have to be cleared and upgraded before it could be accessed. Access to the Shake property for the 1989 exploration program was provided by daily helicopter setouts from Glenora, a distance of less than fifteen kilometers.

The Shake 1-4 claims cover the higher elevations of Rugged Mountain (Figure 2). Topography is rugged, typical of mountainous and glaciated terrain, with elevations ranging from 635 meters on a tributary of Shake Creek termed Syenite Creek in this report to 1823 meters on the peak of Rugged Mountain.

Lower slopes are covered by a dense growth of coniferous growth including pine, hemlock and spruce with an undergrowth of devil's club and huckleberry. Steeper open slopes are covered by dense slide alder growth. Above treeline, which occurs between 1000 and 1400 meters elevation, more open alpine vegetation is present.



The property lies in an intermediate or gradational belt between the wet belt of the Coast Range and the dry belt of the Stikine Plateau. There is little rain during the summer months and the snowfall is considerably lighter than in the wet belt. Prospecting could be started in May and continued through to the middle of October except on the highest elevations or on protected north-facing slopes.

4.0 PROPERTY MINING HISTORY

4.1 Previous Work

Placer gold was discovered on gravel bars of the Stikine River between Glenora and Telegraph Creek in 1861 and worked extensively until the early 1900's. The placer gold deposits of the lower Barrington River, ten kilometers southwest of the Shake 1-4 claims, have been worked sporadically since 1903.

The area south and west of Telegraph Creek was extensively explored for its copper potential throughout the 1960's, following the discovery of the Galore Creek copper-gold porphyry deposit in 1955 and the Schaft Creek copper-molybdenum deposit in 1957, both of which host greater than one million tonnes of contained copper. These deposits are located 85 kilometers south-southwest and 60 kilometers south, respectively, of Telegraph Creek.

Several copper occurrences were discovered southwest of Telegraph Creek at this time. Kennco explored copper mineralization within a syenite body and its intruded volcanics on their Poke claims, 13 kilometers west of Rugged Mountain (BCDM, 1963-65). Their Gordon claims, 10 kilometers west of Rugged Mountain at the junction of Limpoke Creek and the Barrington River,



LEGEND

- QUATERNARY PLEISTOCENE AND RECENT**
- 29 Fluvio-deltaic gravel; sand, silt; glacial outwash, till, alpine moraine and colluvium
- TERTIARY AND QUATERNARY UPPER TERTIARY AND PLEISTOCENE**
- 28 Basalt, olivine basalt, dacite, related pyroclastic rocks and intrusions; minor rhyolite; in part younger than some 29
- CRETACEOUS AND TERTIARY UPPER CRETACEOUS AND LOWER TERTIARY**
- 26 Slocan Group
Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived sediments
 - 24 Shuswap Group
Chert-pebble conglomerate, graptolite-boulder conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal
 - 23 Medium-to coarse-grained, pink biotite-hornblende quartz monzonite
- JURASSIC AND/OR CRETACEOUS POST-UPPER TRIASSIC PRE-TERTIARY**
- 16 Norvaldene diorite
 - 17 Granodiorite, quartz diorite; minor diorite, leucogranite and migmatite
- LOWER JURASSIC**
- 13 Conglomerate, polymictic; granite-boulder conglomerate, grit, greywacke, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcanoclastic rocks
- TRIASSIC AND JURASSIC POST-UPPER TRIASSIC PRE-LOWER JURASSIC**
- 12 Syenite, orthoclase porphyry, monzonite, pyroxenite
- TRIASSIC UPPER TRIASSIC**
- 9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)
 - 8 Angite-xenosite flows, pyroclastic rocks, derived volcanoclastic rocks and related subvolcanic intrusions; minor greywacke, siltstone and polymictic conglomerate
 - 7 Siltstone, thin-bedded siliceous siltstone, ribbon chert, calcareous and dolomitic siltstone, greywacke, volcanic conglomerate, and minor limestone
 - 6 Limestone, feld argillaceous limestone, calcareous shale and redbed limestone; may be part younger than some 7 and 8



SYMBOLS

- Geological boundary defined and approximate, assumed + / + / +
- Bedding (horizontal, inclined, vertical, overturned) + / - / -
- Antiform - + -
- Syncline + - +
- Fault (defined and approximate, assumed) - - -
- Thrust fault, teeth on hanging-wall side defined and approximate, assumed - - -
- Fossil locality ?
- Mineral property 16x
- Glacier -

CANDELA RESOURCES LTD.

SHAKE 1-4 CLAIM GROUP REGIONAL GEOLOGY

LIARD MINING DIVISION, B.C.

EQUITY ENGINEERING LTD.

SCALE 1:250,000
MILES
0 5 10
KILOMETRES
0 5 10

DRAWN. J.W.	N.T.S. 104G/13E	DATE July, 1989	FIG No. 3
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also hosted disseminated copper mineralization within syenite and the intruded volcanics (BCDM, 1966). The MH iron deposit, hosted by a pyroxenite stock on Shakes Creek seven kilometers northwest of Rugged Mountain, was also explored extensively in the 1960's.

No work has ever been recorded on the ground currently covered by the Shake 1-4 claims. However, claim tags dated June 18, 1971 were found immediately west of Rugged Mountain peak. The claims, staked on behalf of Amax Explorations, are part of the Horn group of claims that once covered Rugged Mountain in a northwesterly direction. The ground was undoubtably acquired by Amax for the porphyry copper potential of the syenite body on the southern flank of Rugged Mountain.

4.2 1989 Work Program

During June of 1989, Candela Resources Ltd. carried out reconnaissance exploration on the Shake 1-4 claims, consisting of geological mapping, prospecting and stream sediment sampling, using a topographic orthophoto at a scale of 1:5000. This program was targeted at gold-rich mesothermal base metal veins similar to those occurring within a similar geological environment to the southeast in the Galore Creek, Iskut River, Sulphurets and Stewart mining districts.

During the course of this program, 10 silt samples and 57 rock samples were taken. Silt samples were taken from silt accumulations in major drainages, sieved to minus 80 mesh in the laboratory and analysed geochemically for gold and 32-element ICP (Figure 4). Prospecting and reconnaissance geological mapping were carried out over all claims, using a 1:5000 orthophoto with ten-meter contour intervals as a base (Figure 4). Rock samples, described in Appendix C, were taken from zones of alteration and mineralization and analysed geochemically for gold and 32-element

ICP. One sample containing greater than 2000 ppb gold was fire assayed for gold. Analytical certificates are attached in Appendix D.

5.0 REGIONAL GEOLOGY

The Telegraph Creek area lies on the western margin of the Intermontane Belt within the Stikine Arch near its contact with the Coast Plutonic Complex (Figure 3). A sequence of Paleozoic to middle Triassic oceanic sediments is unconformably overlain by Upper Triassic Stuhini Group island arc volcanics and sediments. These have been intruded by Upper Triassic to Lower Jurassic syenitic stocks and by Jurassic to Lower Cretaceous quartz diorite and granodiorite plutons of the Coast Plutonic Complex.

The oldest rock assemblage in the Telegraph Creek area consists of Permian bioclastic limestone (Unit 3) overlying metamorphosed sediments and volcanics (Unit 2) and crinoidal limestone (Unit 1).

Unconformably overlying the Permian limestone unit are Upper Triassic Stuhini Group island arc volcanics and sediments (Units 5 through 8). In the Telegraph Creek area, Souther (1971) grouped these volcanic and sedimentary members in Unit 9, noting however that it was composed predominantly of augite andesite breccia, conglomerate and volcanic sandstone. Several significant gold occurrences are hosted by Upper Triassic Stuhini volcanics in a cluster around Galore Creek seventy kilometers to the south. This Upper Triassic volcanosedimentary package is also correlative with that which hosts the Snip and Stonehouse gold deposits of the Iskut River district a further sixty kilometers to the south.

Small, equidimensional syenite, pyroxenite and orthoclase porphyry stocks (Unit 12), dated as Late Triassic to Early Jurassic by Souther (1971), intrude mainly Stuhini volcanics. Two of these stocks outcrop on Rugged Mountain and Mount Rowgeen. The syenite porphyry associated with the Poke and Gordon copper occurrences, ten kilometers west of Rugged Mountain, may also belong to Unit 12. The Galore Creek and Copper Canyon copper-gold porphyry deposits are also hosted by Upper Triassic volcanics intruded by syenitic stocks of Unit 12. Orthoclase porphyry or syenite stocks are associated with most significant precious metals deposits in the Stewart, Sulphurets and Iskut River districts, including the Silbak Premier, Sulphurets, and Snip deposits.

Lower Jurassic conglomerates (Unit 13) with granodiorite clasts unconformably overlie Triassic sediments of the Stuhini Group. The Jurassic volcano-sedimentary strata are similar in appearance to those of the underlying Stuhini Group, with differentiation possible mainly through fossil identification.

Jurassic and Cretaceous granodiorite to quartz diorite batholiths (Unit 17) of the Coast Plutonic Complex intrude all older lithologies. This unit consists mainly of medium-grained hornblende-biotite granodiorite with lesser hornblende quartz diorite and is locally foliated near its margins.

Coarse conglomerate, sandstone, siltstone and minor black shale of the Upper Cretaceous and Lower Tertiary Sustut Group (Unit 21) unconformably overlies Jurassic strata on Mount Helveker and are found along the Stikine River below Telegraph Creek. Conformably overlying the Sustut Group on Helveker Mountain are about 160 meters of felsic to intermediate, mainly pyroclastic rocks (Unit 24), correlated by Souther (1972) to the Early Tertiary Sloko Group found further to the northwest.

Upper Tertiary and Quaternary basalt flows (Unit 25) are exposed in the Stikine River and north of Dodjatin Mountain.

6.0 PROPERTY GEOLOGY AND MINERALIZATION

6.1 Geology

Reconnaissance geological mapping indicates that the property is underlain by volcanic and sedimentary rocks of the Upper Triassic Stuhini Group (Unit 8) that are intruded by a differentiated syenitic intrusive (Unit 12) on the southern flank of Rugged Mountain (Figure 4). The legend on the property geology map was selected in order to incorporate the divisions and numbering used on Souther's 1971 Telegraph Creek map.

Volcanic members of the Stuhini Group consist of dark green, mafic volcanoclastics (Unit 8a) and minor augite porphyry flows. The volcanoclastic rocks are easily identified by the appearance of subrounded to subangular fragments on weathered surfaces. The clast size varies from a tuffaceous grit to small blocks, greater than ten centimeters across, characteristic of a volcanic breccia. The dark green color of the tuff/breccia is due to a pervasive chloritization. Exposures of this rock unit are found north of Contact Creek on the west side of the Shake 1 claim. On the south end of the claim group in Forelorn Creek, a bedded volcanic sandstone outcrops (Unit 8b). This rock is distinguished by layering one to four centimeters wide, and is very well jointed.

Overlying the volcanic group is a mixed sedimentary package of laminated siltstone/greywacke, argillite and thin discontinuous limestone horizons (Unit 7). The package characteristically weathers to a rusty colour, reflecting 1-5% pyrite content and this is exemplified by the gossans on the west side of Rugged Mountain

peak which are underlain by pyritic, thinly laminated, calcareous, siltstone/greywacke. Bedding measurements indicate these sediments strike northwesterly and dip in a shallow to moderate northeasterly direction. Fossil casts of pelecypod (*Monotis?*) can be found in argillite subcrop northwest of Rugged Mountain. This fossil would confer with the assigned Upper Triassic age of this sedimentary package. Souther (1971) has tentatively mapped Unit 7 as being conformably overlain by the volcanic rocks (unit 8); however, no bedding or structural evidence was seen to explain why the sedimentary succession is found overlying the volcanioclastic package in this area. The stratigraphic positioning exhibited on the Shake property agrees the stratigraphic section proposed by earlier government mapping by Kerr (1948).

Further west, close to the northern boundary of the Shake 1 claim is a polymictic conglomerate (unit 8c) containing siltstone, argillite, limestone, flower porphyry and volcanioclastic clasts. As the unit is fairly resistant to weathering, the conglomerate forms steep bluffs and surface weathering out of limestone clasts gives a pocked weathered surface. The clasts within this unit are well rounded and may be up ten centimeters in diameter.

The intrusive rocks (Unit 12) are separated into three categories: syenite, orthoclase porphyry and pyroxenite. The first category forms the main plutonic mass in the southwest quadrant of the property whereas the second two rock types are related to the main syenite by a high content of potash feldspar and an absence of quartz. This group of alkaline intrusives cut Upper Triassic volcanic and sedimentary rocks and are dated as late Triassic to early Jurassic.

The main body on Rugged Mountain is a mainly equigranular, locally porphyritic syenite (Unit 12a) consisting of orthoclase and minor mafic minerals. The colour of this unit varies from a grey

colour to reddish pink. Kerr (1948) differentiated the two types on the basis of colour and cross-cutting relationships leading him to conclude that "the red colour is due to the development, or introduction, of the unknown reddening constituents." The grey syenite is predominately on the north side of the pluton and the red syenite is more to the south and can be found cutting the grey mass. The "unknown reddening agent" proposed by Kerr is probably an alteration product of potassium feldspar introduced late in the crystallization of Rugged Mountain syenite. Dykes of the syenite material are found in the surrounding volcanic rocks near to the contact of the main mass.

A rind of dark green, pyroxenite (Unit 12c) occurs on the syenite-volcanic/sedimentary contact. The pyroxenite is comprised of a high content of granular, disseminated magnetite (up to 50%), biotite and a dark green pyroxene, augite. The pyroxenite exhibits sharp contact boundaries with both the syenite and the surrounding volcanic rocks following the length of Contact Creek. The formation of the pyroxenite may be a result of the assimilation of mafic volcanic material and perhaps, by the differentiation of the main syenitic body. The pyroxenite shell on Rugged Mountain appears to be very similar to the magnetite-rich pyroxenite described on the MH iron property located northwest of the Shake property.

The third intrusive type (Unit 12b) is that of the orthoclase porphyry dykes (sills?) found crossing Rugged Mountain in a northeasterly direction. These dykes are characterized by large orthoclase phenocrysts up to several centimeters across, set within a light grey, aphanitic groundmass. The dykes are generally not greater than 10 meters wide and contacts with the country rock are sharp.

6.2 Mineralization

Two types of sulphide mineralization were discovered during the current exploration program: shear hosted, quartz-carbonate veining and syenite hosted veining and fracture fillings. The greatest precious metal potential exists in the veining of the first type.

The strongest sulphide mineralization and best gold values were found in narrow quartz-carbonate veins and discontinuous massive sulphide lenses within shear structures in altered volcanic and sedimentary rocks north of Contact Creek. The mineralogy consists mainly of pyrite, chalcopyrite, magnetite and arsenopyrite with as well as a single occurrence of molybdenite. These zones of mineralization are easily identified by their rusty weathered surfaces of limonitic products and copper staining. Syenite and orthoclase dykes are quite often found in close proximity to these mineral occurrences. Although some of the structures are well mineralized, the majority of them are limited in both width and strike length. Typical of these structures is a narrow sheared zone with isolated pods of pyrite and chalcopyrite, sampled north of Contact Creek (Sample# 172302). A select grab of the sulphide pods contained 790 parts per billion gold and 55.0 parts per million silver.

The highest gold values were returned from a 5 to 20 centimeter wide quartz-carbonate vein, mineralized with pyrite, arsenopyrite and chalcopyrite, that can be traced for approximately 50 meters. The vein is hosted in pyritic sediments and strikes northeasterly and dips steeply to the southeast. Sample# 30268, a grab sample from the zone, assayed 0.422 ounces per ton gold.

The syenite was found to contain chalcopyrite and pyrite mineralization along fractures and in veins, more typical of

porphyry style mineralization. One of the vein structures was found to be anomalous in gold with a geochemical value of 1120 parts per billion (Sample# 172308). The frequency and density of the mineralized structures do not appear great enough in the areas examined to host a large tonnage, porphyry style deposit.

Character samples were taken of the magnetite rich pyroxenite surrounding the main syenite body (Sample# 172304) and weakly pyritic orthoclase porphyry dykes (Sample# 172305). Gold values for both rock types were below detection limit and the copper content of the pyroxenite was weakly anomalous at 533 parts per million.

7.0 STREAM GEOCHEMISTRY

Ten silt samples were taken from streams draining the Shake 1-4 claims (figure 5). The results confirm, in part, the results of the National Reconnaissance survey released in 1988 and reflect the mineralization found north of Contact Creek in the altered volcanic and sedimentary rocks.

The government survey showed the drainages on the west side of Rugged Mountain (Syenite, Contact, Forelorn, North Creeks) to be anomalous in copper, cobalt and gold.

Eight of the silt samples taken this year were very anomalous in copper (up to 720 parts per million) reflecting the copper mineralization in the syenite, volcanic and sedimentary rocks on the west side of the Shake property. Four of the samples contained elevated gold values ranging from 40 to 100 parts per billion. Three of these samples were taken from northern tributaries of Contact Creek in areas underlain by altered volcanics and sediments intruded by syenite and orthoclase porphyry dykes. This area has

been identified by mapping and prospecting to be a favourable host for precious metal mineralization and this is being reflected in the anomalous stream geochemistry.

One sample taken (S-8) on a tributary of Syenite Creek returned a gold value of 45 parts per billion. The source of this anomaly was found up slope in a narrow quartz-carbonate vein with pyrite and chalcopyrite. A grab sample of this vein, Sample# 172308, contained 1120 parts per billion gold.

8.0 DISCUSSION AND CONCLUSIONS

During the course of limited exploration work in 1989, anomalous stream sediment and rock samples were taken from the western slope of Rugged Mountain on the Shake 1-4 mineral claims.

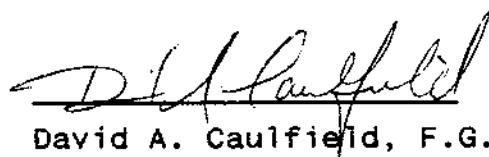
Rock samples collected from the property which showed notable gold and copper geochemistry were taken from a number of shear vein structures hosted in volcanic and sedimentary rocks in close proximity to a syenite intrusion and satellite orthoclase porphyry and syenite dykes. The narrow, quartz-carbonate veins contain pyrite, chalcopyrite, arsenopyrite and magnetite. To date, the best results come from a 5 to 20 centimeter wide vein with arsenopyrite mineralization. A grab sample from this vein assayed 0.422 ounces per ton gold.

Silt sampling on the Shake 1 claim indicated that three of the drainages contained gold values of 40, 90 and 100 parts per billion with very anomalous copper values. The source of most of these anomalies remain to be discovered.

Extremely encouraging initial results, coupled with the exploration successes achieved all along the regional trend between

the Stewart, Iskut River, Galore Creek and Schaft Creek areas provide abundant incentive to conduct further exploration work on the Shake 1-4 mineral claims.

Respectfully submitted,
EQUITY ENGINEERING LTD.


David A. Caulfield, F.G.A.C.

Vancouver, British Columbia
September, 1989

APPENDIX A

BIBLIOGRAPHY

BIBLIOGRAPHY

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APPENDIX B

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES
SHAKE 1-4 CLAIMS
(June 16-23, 1989)

PROFESSIONAL FEES AND WAGES:

David A. Caulfield, Geologist	
7.75 days @ \$350/day	\$ 2,712.50
Henry J. Awmack, P.Eng.	
0.5 days @ \$350/day	175.00
Kika Ross, Geologist	
2.5 days @ \$250/day	625.00
Tom Bell, Prospector	
6.5 days @ \$250/day	1,625.00
Don Coolidge, Prospector	
6.0 days @ \$250/day	1,500.00
Clerical	
12 hours @ \$20/hour	<u>240.00</u>
	\$ 6,877.50

EQUIPMENT RENTALS:

Truck	
3.5 days @ \$60/day	\$ 210.00
Truck (Standby)	
3.0 days @ \$10/day	30.00
Hand-held Radios	
10 days @ \$5/day	50.00
Fly Camp	
21 mandays @ \$20/manday	<u>420.00</u>
	710.00

CHEMICAL ANALYSES:

10 silt @ \$13.87	\$ 138.65
57 rock geochem @ \$16.45	937.65
1 gold assay @ \$8.46	<u>8.46</u>
	1,084.76

EXPENSES:

Materials and Supplies	\$ 164.90
Maps and Publications	32.31
Orthophoto Construction	3,206.00
Printing and Reproductions	105.69
Camp Food	354.50
Camp Fuel	11.95
Camp Supplies	48.12
Meals	80.08
Travel	458.30
Automotive Fuel	99.95
Aircraft Charters	339.00
Helicopter Charters	3,359.40
Telephone Distance Charges	151.85
Freight	81.00
Expediting	18.00
Courier and Telefax	<u>40.36</u>
	8,551.41

REPORT (estimated)	2,000.00
MANAGEMENT FEE:	
15% on expenses	<u>1,741.45</u>
	\$ 20,965.12
	=====

APPENDIX C

ROCK DESCRIPTIONS

Geochemical Data Sheet - ROCK SAMPLING

Sampler Tom Bell
Date June 19-22, 1989

Project CDD89-02
Property Shakes 1-4

NTS 1046113E

Location Ref Rugged Mtn.
Air Photo No _____

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS					
					Rock Type	Alteration	Mineralization		ppb	ppm	Au	Ag	Cu	
30267	6411650 N 343350 E Greek North of Contact Creek	Grab DC	5.0m 2.0m		mafic Volc.	SE, LI	PY, MN, Mg tr. MO	Shear zone f 120°/80°NE sample of HW side	15	1.0	824	<2	42	40
58	6411650 N 343350 E	Grab DC	3.0m	"	"	"	"	same zone 10m up slope. zone exposed 15m	35	1.2	1220	12	42	55
59	6411510 N 343550 E (1220m elev.)	Grab DC	50cm 1-2m		Contact w/ syenite dike	CA, AK	LI, PY	f 065°?, gossan extends across face for 50m	20	0.6	523	8	62	60
60	6411500 N 343550 N	Subcrop Grab	10cm ?		"	AK	PY	bottom end of above gossan on another dike	40	<0.2	280	2	16	25
61	6411610 N 343610 E	Grab DC	50cm 50cm		mafic volcanics	QZ, CA	PY	west side of gully, 50x50m pod	60	0.6	924	<2	114	25
62	6411670 N 343610 E (1275m elev.)	Float			?	CA, GA, EP	PY (coarse euhedral)		15	0.2	134	2	26	10
63	6411550 N 343550 E (1120m elev.)	Grab DC	25cm 50cm		alt& volcanics	CA	LI, PY, MN	f 100% /v. zone exposed for 5.0 m.	20	1.4	342	<2	62	30
64	6411510 N 343350 E (1200m elev.)	Grab DC	1.0m 1.0m		contact of lignite volc. w/ orth. porphy.	CL, CA	LI, PY, CP AZ, MA, HN	f 080% /v	25	1.2	409	10	66	15
65	6411350 N 344720 E Between Contact + North Creek	Grab DC	1.0m 10-15cm		volcanics	SE, CL, QZ	PY, AR, CP, ZN	1720m elev., Gossan, exposed 30-40m f 025°/75°SE, grab along vein	730	0.4	80	14	48	710,000
66	6411350 N 344720 E	Grab DC	2.0m 5-10cm		"	CA, SE	PY, AR	10m along vein, grab for 2m along strike - east of 65	5370	2.0	178	24	66	8500
67	6411350 N 344720 E	Grab DC	50cm 5cm		siltst.	CA, SE	PY, AR	6m west of 65	370	<0.2	54	6	32	5120
68	6411350 N 344720 E	Grab DC	5m 5-10cm		"	CA, SE	PY, AR	15m-20m west of 65, vein split	719,000	6.8	80	14	40	5300
69	6411350 N 344720 E	Grab DC	20cm 50x50cm		laminated siltst.	CL	PY, GE, JA CP	pod of mineralization off of CA vein between 267, 268	200	1.4	993	2	50	105
70	6411300 N 344660 E (1665m)	Grab DC	1.0m 5-10cm		"	CA, QZ	AF, PY	same system as 265 down slope f 090°/v	375	0.2	23	32	30	1495
71	6411300 N 344660 E	Grab DC	5-10cm		"	CA, QZ	AR, PY, GA	3m east of 270, 2nd vein 030°/v	180	<0.2	15	48	106	1315
72	6411170 N 344750 E (1660m)	Grab DC	1.0m 50-60cm		Orthoclast porphyry	SE, CL, CA MA	PY, GA, AZ	zone or pod?	20	0.8	23	468	720	40
73	6411170 N 344660 E	Grab DC	50cm		"	QZ, CL, CA	PY, GE, JA	opposite side of porphyry 10m x 30m gossan	40	0.8	133	12	54	30
74	6411100 N 344710 E (1630m)	Grab DC	3.0m		alt& siltst.	CL, white chalcocite	GE, TA, HE NE	south along face, area 5m x 5m	35	0.6	725	<2	82	60
75	6411100 N 344610 E (1575m)	Grab DC	1.0m 1.0x30cm		alt& syenite	CL	JA, GE, PY goss		680	1.8	338	6	40	35
76	6411100 N 344550 E (1520m)	Grab DC	2.0m 20-10cm		volcanics agglos.	CA, QZ, CL	PY, JA, GE HE	12m strike, f 100% /v	50	0.2	318	14	186	40

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Geochemical Data Sheet - STREAM SILTS

Sampler David A. Canfield
Date June 19-22, 1989

Project CDD 89-02
Property SHAKES 1-4

NTS 1049/13E
Location Ref Rugged Mtn.
Air Photo No _____

SAMPLE NO.	VOLUME		DRAIN	Ph	TYPE	COLOUR	TEXTURE	Petrology of Bedrock and/or Float	ADDITIONAL OBSERVATIONS / REMARKS	ASSAYS						
	Width	Depth								ppb	ppm	Au	Ag	Cu	Pb	Zn
DAC S-1	1 m.	10cm	Steep		Silt	Dark Brown	Sandy-silt	75% Volc. 25% Syenite	sample from under moss	90	0.8	720	10	122	20	
S-2	Dry	"			Silt + % Soil, talus	"	"	"	dry gully, rock/silt/talus fine debris in 10m wide shoot	40	0.2	384	14	114	30	
S-3	0.5m	10cm	"		Silt/sandy talus fine	"	"	"	sample from moss, cracks in BC at base of small water fall	100	0.4	595	4	100	20	
S-4	2.0m	20-30 cm	Mod. to flat		silt	Dark green block	"	Silt-stoned greywacke conglom.	North Fork tributary of Kink Creek	<5	<0.2	87	4	104	15	
S-5	2.0m	20cm	Mod.		silt	light brown	"	Syenite matrix volc.	Foothorn Creek 670m ELEV.	<5	0.2	221	<2	90	10	
S-6	0.5m	10cm	Mod.-steep		silt	Pink brown colour	"	Syenite	West tributary of Foothorn Creek 930m ELEV.	<5	0.2	352	10	80	25	
S-7	2.0m	20cm	Mod.		silt	dk. pink to black		Syenite	Main drainage of Syenite Creek 940m ELEV	<5	0.2	125	<2	76	15	
S-8	0.3m	15cm	Steep		silt	dk. brown		Syenite	taken from crack in rocks and under moss (1200m ELEV.)	45	0.4	257	4	138	25	
TB-1	0.75m	5-10 cm	Mod.		Silt sand/gravel	Dark brown	Silty/sandy	Mixed volc/seds.	Poor silt (1400m ELEV.)	15	<0.2	197	14	114	30	
TB-2	0.2m	5cm	Steep		poor silt	"	"	"	(1470m ELEV.)	<5	<0.2	81	2	90	20	

Geochemical Data Sheet - ROCK SAMPLING

Sampler Don Coolidge
Date June 19-22, 1989

Project COD 89-02
Property Shakes 1-4

NTS 10461/13E

Location Ref Rugged Mtn.
Air Photo No _____

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS					
				Rock Type	Alteration	Mineralization		ppb	ppm	Au	Ag	Cu	
358004	6410830N 343550E Contact Creek	Float grab		mafic volc.	CL	PY, MG, MA	float in talus slope	30	0.2	319	28	66	5
05	6411010N 343650E (1273m)	Float grab		Syenite porphyry	CL, KE	PY, HO, FMO	talus, mineralized in volc in contact w/ dike	25	1.2	484	22	112	<5
06	6411000N 343770E (1183m)	Grab dc	10cm	mafic volc.	CL	LI, PY	1cm lens of massive PY small pod.	<5	0.6	1725	8	90	5
07	6411000N 343770E (1180m)	Grab dc	4cm	"	QE		f 020°/80°SE, sugary texture QE stringer	260	<0.2	44	6	12	35
08	6410880N 343650E (1220m)	Grab dc	90cm	Syenite porphyry	CL	CP, MG, PY	weather orange to tan 103°/7, slickensides on contact	10	0.4	863	10	36	<5
09	6410920N 344220E (1290m)	Grab dc	12cm	mafic volc.	CL	PY	Rusty zone 12cm wide, small pod, SYP in area	25	0.8	1585	12	84	10
10	6410880N 344220E (1290m)	Grab dc	10x14cm	"	CL	PY, MA, CP	Possibly on strike w/ 09 5m to south.	125	4.2	7910	8	94	35
11	6410860N 344200E (1100m)	Grab dc	14-20cm	"	CL		f 120° trend, 1m. strike length only	50	1.2	3380	6	58	15
12	6410860N 344200E (1775m) Bullion Peak	Grab dc		interbedded silt/wacke		PY, LI	Rusty stained dc. adjacent to orthoclase porphyry	20	<0.2	201	6	30	5
13	6411570N 344150E (1619m)	Grab dc	1-3m	Volc.	CL	PY, LI	greenish volc. w/ disse PY exposed 25m trend 10°-20°	<5	<0.2	189	4	20	<5
14	6407750N 346890E (710m) <small>old</small>	Chip	17m ~17m	well alterd shattered	CL, CA	PY, JA, GE	} two consecutive samples of shattered alterd	<5	<0.2	292	<2	52	15
15	6407750N 346890E (710m)	Chip	20m ~20m	volcaniclastic	"	"	} volcaniclastic in contact w/ syenite	<5	<0.2	302	<2	44	15
16	6407810N 346890E (774m)	Grab dc	18x20cm	"	CL	PY, GE	sample 50m above creek concentrated pod of 5"	<5	<0.2	226	<2	30	<5
17	6407810N 346890E (774m)	Grab dc	50x60cm	"	CL	PY, MG, CP	10m west of 358016, taken adjacent to dyke ~010°	<5	<0.2	384	12	32	5
18	6407805N 346890E (793m)	Grab dc	12x16cm	Syenite		PY 25%	sample 35m above creek sample pod	<5	<0.2	584	6	52	135
19	6407810N 346890E (823m)	Grab dc	0.5m	alter volcaniclastic	well alter	PY	25m above creek in mud slide area, f 084° for 1.5m	25	<0.2	128	8	24	45
20	6407750N 344950E Contact Cr.	Grab dc	40cm	alter sediments	EP?	PY, CP, HE? LI,	Rusty mudst. dc, f 026° for 40m.	80	<0.2	699	4	42	30
21	640770N 344950E (710m)	Chip dc	20cm	"	CL	15-20% PY JA, GE	20m south of 020, gonge on FW, blob 20x35cm	85	<0.2	1140	<2	48	15
22	640778N 345010E (1775m)	Grab dc	40cm	alter orth. porphy		GE	almost ferricrete appearance all 5" weathered out	45	<0.2	311	12	280	40
23	640770N 345010E (1775m)	Grab dc	4-8cm	"	CA	no 5"	strikes 20m 038°/88°E	<5	<0.2	6	4	10	5

**EQUITY
ENGINEERING LTD.**

Geochemical Data Sheet - ROCK SAMPLING

Sampler David A. Caulfield
Date June 19-21, 1989

Project CDD 89-02
Property Shakes 1-4

NTS 104 G / 13E
Location Ref Rugged Mtn.
Air Photo No

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width	True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS					
					Rock Type	Alteration	Mineralization		ppb	ppm	Au	Ag	Cu	Pb
172301	6410890 N 343780 E Contact Creek	Grab float			dk. green volc breccia	CL	CP, MG MA	angular float	25	40.2	855	LZ	72	5
02	6410960 N 343800 E	Select grab dc	0-15cm	"	LA, CL, KE	CP, MA, AZ LI	F 165°/65°NE, mineralized pods along sheared fractures		790	55.0	10,000	10	522	60
03	6410770 N 344160 E	Grab dc	0.10-2.0m	"		PY, CP	Fault Breccia parallel to zone F 125°/80° SW		45	1.2	1095	LZ	114	30
04	6410890 N 344350 E	Character grab dc	30-50m	border phase	BT, CL	MG	Wide border zone between syenite & volcanic		15	40.2	533	12	64	10
05	6411920 N 344500 E Headwaters of North Creek	"		orthoclase porphyry		PY	grab across orthoclase porphyry dike/cross		15	40.2	69	18	80	10
06	6407790 N 346450 E Forlorn Creek	Grab dc	2-4cm	alt+met volcaniclastic	QE, CL	PY 10-20%	limited strike length, narrow pods along sheared structures		5	40.2	165	LZ	84	30
07	6408390 N 346560 E	Grab dc	2.0m	Syenite	CL	CP, MG, PY MA	CL alt& syenite w/ strong MG		210	9.8	3980	24	124	10
08	6409930 N 344730 E Syenite Creek	Grab dc	4cm	"	QE, LL	JA, GE, PY	Strike length ~ 10m, F 025°/80° NW		1120	2.0	127	28	32	20
09	6410530 N 345230 E	Grab sc	?	alt+met Volcanics	QE, CL	PY, JA, GE CP?	grab of heaver on saddle extreme weathering		95	3.2	1010	12	42	35
10	6410530 N 345220 E	Grab dc	40cm	"	QE, CL	"	10m below 309.		60	1.4	242	8	20	10
11	6410540 N 345210 E	Grab dc/sc	5m	?"	QE, CL	"	5m NW of 310, grab along ridge line.		120	2.8	477	12	28	20

APPENDIX D

CERTIFICATES OF ANALYSIS



Chemex Labs Ltd.
 Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

CERTIFICATE A8919181

EQUITY ENGINEERING LTD.
 PROJECT : CDD89-02
 P.O.B. : NONE

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 9-JUL-89.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER	SAMPLES	DESCRIPTION
205	57		Rock Geochem: Crush,split,ring
238	57		ICP: Aqua regia digestion

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1N2

A8919181

Comments: ATTN: D. CAULFIELD

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER	SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	57		Au ppb: Fuse 10 g sample	FA-AAS	5	10000
921	57		Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	57		Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	57		As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	57		Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	57		Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	57		Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	57		Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	57		Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	57		Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	57		Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	57		Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	57		Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	57		Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	57		Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	57		K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	57		La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	57		Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	57		Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
938	57		Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	57		Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	57		Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	57		P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	57		Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	57		Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	57		Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	57		Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	57		Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	57		Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	57		U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	57		V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	57		W ppm: 32 element, soil & rock	ICP-AES	10	10000
950	57		Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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BRITISH COLUMBIA, CANADA V7J-1C1
PHONE (604) 984-0221

To : EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : CDD89-02

Comments: ATTN: D. CAULFIELD

Page No. : 2-A
Tot. Pages: 2
Date : 9-JUL-89
Invoice #: I-8919181
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CERTIFICATE OF ANALYSIS A8919181

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
358011 H	205 238	50	1.73	1.2	15	20	< 0.5	< 2	1.38	< 0.5	143	32	3380	8.65	10	< 1	0.12	< 10	0.53	320
358012 H	205 238	20	1.51	< 0.2	5	20	< 0.5	< 2	2.25	< 0.5	19	51	201	4.11	10	< 1	0.05	< 10	0.68	295
358013 H	205 238	< 5	2.34	< 0.2	< 5	20	< 0.5	< 2	2.69	< 0.5	20	16	189	4.73	10	< 1	0.06	< 10	0.62	425
358014 H	205 238	< 5	2.98	< 0.2	15	30	< 0.5	< 2	4.31	< 0.5	12	35	292	3.00	< 10	< 1	0.10	< 10	0.74	370
358015 H	205 238	< 5	1.98	< 0.2	15	30	< 0.5	< 2	2.27	< 0.5	12	41	302	3.64	10	< 1	0.12	< 10	0.80	265
358016 H	205 238	< 5	2.92	< 0.2	< 5	20	< 0.5	< 2	3.20	< 0.5	19	36	226	3.04	< 10	< 1	0.20	< 10	0.44	180
358017 H	205 238	< 5	2.88	< 0.2	5	20	0.5	< 2	3.09	< 0.5	19	50	384	4.27	10	< 1	0.10	< 10	0.45	200
358018 H	205 238	< 5	3.79	< 0.2	135	< 10	1.5	< 2	6.46	< 0.5	52	38	584	11.25	10	< 1	0.02	< 10	1.16	1270
358019 H	205 238	25	2.02	< 0.2	45	10	1.0	< 2	1.75	< 0.5	21	52	128	6.28	10	< 1	0.04	< 10	0.92	195
358020 H	205 238	80	1.08	< 0.2	30	< 10	1.5	< 2	4.15	< 0.5	81	22	699	>15.00	20	< 1	0.02	< 10	0.36	860
358021 H	205 238	85	2.42	< 0.2	15	10	1.5	< 2	0.83	< 0.5	84	21	1140	>15.00	10	< 1	0.15	< 10	0.41	270
358022 H	205 238	45	0.65	< 0.2	40	20	< 0.5	< 2	0.08	< 0.5	25	18	311	>15.00	20	< 1	0.16	< 10	0.15	175
358023 H	205 238	< 5	0.17	< 0.2	5	< 10	< 0.5	8	>15.00	< 0.5	2	3	6	0.34	< 10	< 1	0.11	< 10	0.06	160
358024 H	205 238	115	2.28	< 0.2	55	10	0.5	< 2	1.29	< 0.5	29	79	195	6.28	10	< 1	0.40	< 10	2.09	250
358025 H	205 238	45	1.52	< 0.2	20	30	0.5	2	0.30	< 0.5	9	76	46	11.85	20	< 1	0.32	< 10	1.54	320
358026 H	205 238	< 5	0.06	< 0.2	< 5	< 10	< 0.5	8	>15.00	< 0.5	10	3	53	2.11	< 10	< 1	0.01	< 10	0.06	2900
358027 H	205 238	15	1.37	< 0.2	35	< 10	0.5	< 2	14.90	1.0	76	40	884	>15.00	< 10	< 1	0.02	< 10	0.54	940

CERTIFICATION :



Chemex Labs Ltd.
 Analytical Chemists • Geochemists • Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

To : EQUITY ENGINEERING LTD.

Page No. : 2-B
 Tot. Pages: 2
 Date : 9-JUL-89
 Invoice #: I-8919181
 P.O. # : NONE

207 - 675 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1N2

Project : CDD89-02

Comments: ATTN: D CAULFIELD

CERTIFICATE OF ANALYSIS A8919181

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
358011 H	205 238	22	0.01	13	70	6	< 5	1	133	0.08	< 10	< 10	44	< 10	58
358012 H	205 238	3	0.05	36	1200	6	< 5	5	28	0.25	< 10	< 10	72	< 10	30
358013 H	205 238	2	0.13	9	680	4	< 5	5	41	0.30	< 10	< 10	83	< 10	20
358014 H	205 238	8	0.03	14	970	< 2	< 5	7	87	0.20	< 10	< 10	118	< 10	52
358015 H	205 238	1	0.04	19	1230	< 2	5	5	101	0.22	< 10	< 10	127	< 10	44
358016 H	205 238	< 1	0.15	22	1060	< 2	< 5	4	63	0.22	< 10	< 10	99	< 10	30
358017 H	205 238	< 1	0.04	26	1120	12	5	4	32	0.23	< 10	< 10	134	< 10	32
358018 H	205 238	1	0.02	58	1130	6	5	10	46	0.12	< 10	< 10	191	< 10	52
358019 H	205 238	4	0.03	30	1230	8	< 5	8	50	0.18	< 10	< 10	125	< 10	24
358020 H	205 238	17 < 0.01	5	460	4	10	3	29	0.09	< 10	< 10	61	< 10	42	
358021 H	205 238	4	0.25	31	650	< 2	5	4	59	0.11	< 10	< 10	56	< 10	48
358022 H	205 238	74 < 0.01	10	610	12	10	3	7	0.07	< 10	< 10	49	< 10	280	
358023 H	205 238	1 < 0.01	< 1	30	4	5	< 1	725	< 0.01	< 10	< 10	3	< 10	10	
358024 H	205 238	2	0.03	38	1270	4	5	7	14	0.28	< 10	< 10	150	< 10	24
358025 H	205 238	53 < 0.01	11	1040	34	5	8	14	0.10	< 10	< 10	131	< 10	124	
358026 H	205 238	< 1 < 0.01	< 1	10	114	5	2	1145	< 0.01	< 10	< 10	3	< 10	12	
358027 H	205 238	3	0.01	28	430	48	5	4	237	0.07	< 10	< 10	29	< 10	246

CERTIFICATION : B. Cagli



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CERTIFICATE A8919182

EQUITY ENGINEERING LTD.
 PROJECT : CDD89-02
 P.O. # : NONE

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 9-JUL-89.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER	SAMPLES	DESCRIPTION
201	10	Dry, sieve -80 mesh; soil, sed.	
238	10	ICP: Aqua regia digestion	

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1N2

Comments: ATTN: D. CAULFIELD

A8919182

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER	SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	10	Au ppb: Fuse 10 g sample	FA-AAS	5	10000	
921	10	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00	
922	10	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200	
923	10	As ppm: 32 element, soil & rock	ICP-AES	5	10000	
924	10	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000	
925	10	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0	
926	10	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000	
927	10	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00	
928	10	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0	
929	10	Co ppm: 32 element, soil & rock	ICP-AES	1	10000	
930	10	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000	
931	10	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000	
932	10	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00	
933	10	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000	
934	10	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000	
935	10	K %: 32 element, soil & rock	ICP-AES	0.01	10.00	
936	10	La ppm: 32 element, soil & rock	ICP-AES	10	10000	
937	10	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00	
938	10	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000	
939	10	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000	
940	10	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00	
941	10	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000	
942	10	P ppm: 32 element, soil & rock	ICP-AES	10	10000	
943	10	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000	
944	10	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000	
945	10	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000	
946	10	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000	
947	10	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00	
948	10	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000	
949	10	U ppm: 32 element, soil & rock	ICP-AES	10	10000	
950	10	V ppm: 32 element, soil & rock	ICP-AES	1	10000	
		W ppm: 32 element, soil & rock	ICP-AES	10	10000	
		Zn ppm: 32 element, soil & rock	ICP-AES	2	10000	



Chemex Labs Ltd.
 Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

To : EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1N2

Project : CMDB9-02

Comments: ATTN: D. CAULFIELD

Page No.: 1-A
 Tot. Pages: 1
 Date : 9-JUL-89
 Invoice #: I-8919182
 P.O. #: NONE

CERTIFICATE OF ANALYSIS A8919182

SAMPLE DESCRIPTION	PREP CODE	Au ppb FATAA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
DAC S-1	201 238	90	3.26	0.8	20	90	1.0	< 2	2.91	< 0.5	41	89	720	7.38	< 10	< 1	0.17	< 10	2.64	1680
DAC S-2	201 238	40	3.23	0.2	30	70	1.0	< 2	2.25	< 0.5	38	59	384	6.64	< 10	2	0.13	< 10	2.18	1680
DAC S-3	201 238	100	2.96	0.4	20	150	2.0	< 2	3.82	< 0.5	39	43	595	7.53	< 10	< 1	0.11	< 10	2.42	1345
DAC S-4	201 238	< 5	3.12	< 0.2	15	50	0.5	< 2	1.72	< 0.5	23	79	87	4.83	< 10	< 1	0.06	< 10	1.94	835
DAC S-5	201 238	< 5	1.69	0.2	10	40	1.0	< 2	4.00	< 0.5	28	54	221	9.39	< 10	< 1	0.13	< 10	1.02	1070
DAC S-6	201 238	< 5	2.41	0.2	25	30	1.0	< 2	3.94	< 0.5	17	31	352	5.24	< 10	1	0.10	< 10	1.02	1070
DAC S-7	201 238	< 5	1.78	0.2	15	180	0.5	< 2	4.10	< 0.5	22	32	125	5.37	< 10	1	0.40	< 10	1.31	940
DAC S-8	201 238	45	2.52	0.4	25	60	1.0	< 2	6.24	< 0.5	26	30	257	7.81	< 10	< 1	0.50	< 10	2.08	1765
TB-1	201 238	15	3.22	< 0.2	30	70	1.0	< 2	1.57	< 0.5	29	47	197	5.65	< 10	< 1	0.17	10	1.80	1120
TB-2	201 238	< 5	2.86	< 0.2	20	50	0.5	< 2	1.83	< 0.5	22	39	81	4.61	< 10	1	0.05	< 10	1.60	930

CERTIFICATION :



Chemex Labs Ltd.
 Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE . NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-8221

To : EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
 VANCOUVER, BC
 V6B 1N2

Project : CDD89-02

Comments: ATTN: D. CAULFIELD

Page No. : 1-B
 Tot. Pages: 1
 Date : 9-JUL-89
 Invoice #: I-8919182
 P.O. #: NONE

CERTIFICATE OF ANALYSIS A8919182

SAMPLE DESCRIPTION	PREP CODE	Mb ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	
DAC S-1	201	238	17	0.02	26	1590	10	5	21	179	0.29	< 10	< 10	252	< 10	122
DAC S-2	201	238	4	0.02	21	1000	14	< 5	19	116	0.22	< 10	< 10	209	< 10	114
DAC S-3	201	238	9	0.02	15	2730	4	5	19	403	0.36	< 10	< 10	303	< 10	100
DAC S-4	201	238	1	0.04	41	1200	4	< 5	14	226	0.34	< 10	< 10	169	< 10	104
DAC S-5	201	238	< 1	0.06	15	3840	< 2	5	10	290	0.18	< 10	< 10	380	< 10	90
DAC S-6	201	238	< 1	0.04	12	1590	10	< 5	10	200	0.36	< 10	< 10	282	< 10	80
DAC S-7	201	238	< 1	0.21	10	4970	< 2	5	11	584	0.25	< 10	< 10	239	< 10	76
DAC S-8	201	238	< 1	0.13	9	4460	4	5	23	716	0.51	< 10	< 10	438	< 10	138
TB-1	201	238	< 1	0.05	24	1180	14	< 5	13	137	0.26	< 10	< 10	188	< 10	114
TB-2	201	238	< 1	0.02	20	1130	2	< 5	11	191	0.26	< 10	< 10	142	< 10	90

CERTIFICATION :



Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0121

CERTIFICATE A8920703

EQUITY ENGINEERING LTD
PROJECT : CDD89-02
P.O. # : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-JUL-89.

To: EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Comments: ATTN: D. CAULFIELD

A8920703

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
396	1	Au oz/T: 1/2 assay ton	FA-GRAVIMETRIC	0.003	20.000

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
214	1	Received sample as pulp



Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
112 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0321

To : EQUITY ENGINEERING LTD.

207 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N2

Project : CDD89-02

Comments: ATTN: D. CAULFIELD

Page No.: 1
Tot. Pages: 1
Date: 17-JUL-89
Invoice #: I-8920703
P.O. #: NONE

CERTIFICATE OF ANALYSIS A8920703

SAMPLE DESCRIPTION	PREP CODE	Au FA oz/T										
30268 E	214	--	0.422									

CERTIFICATION :

H. Bentmann
B.C. CERTIFIED ASSAYER

APPENDIX E

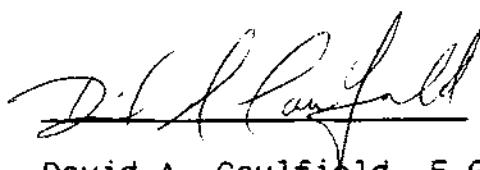
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

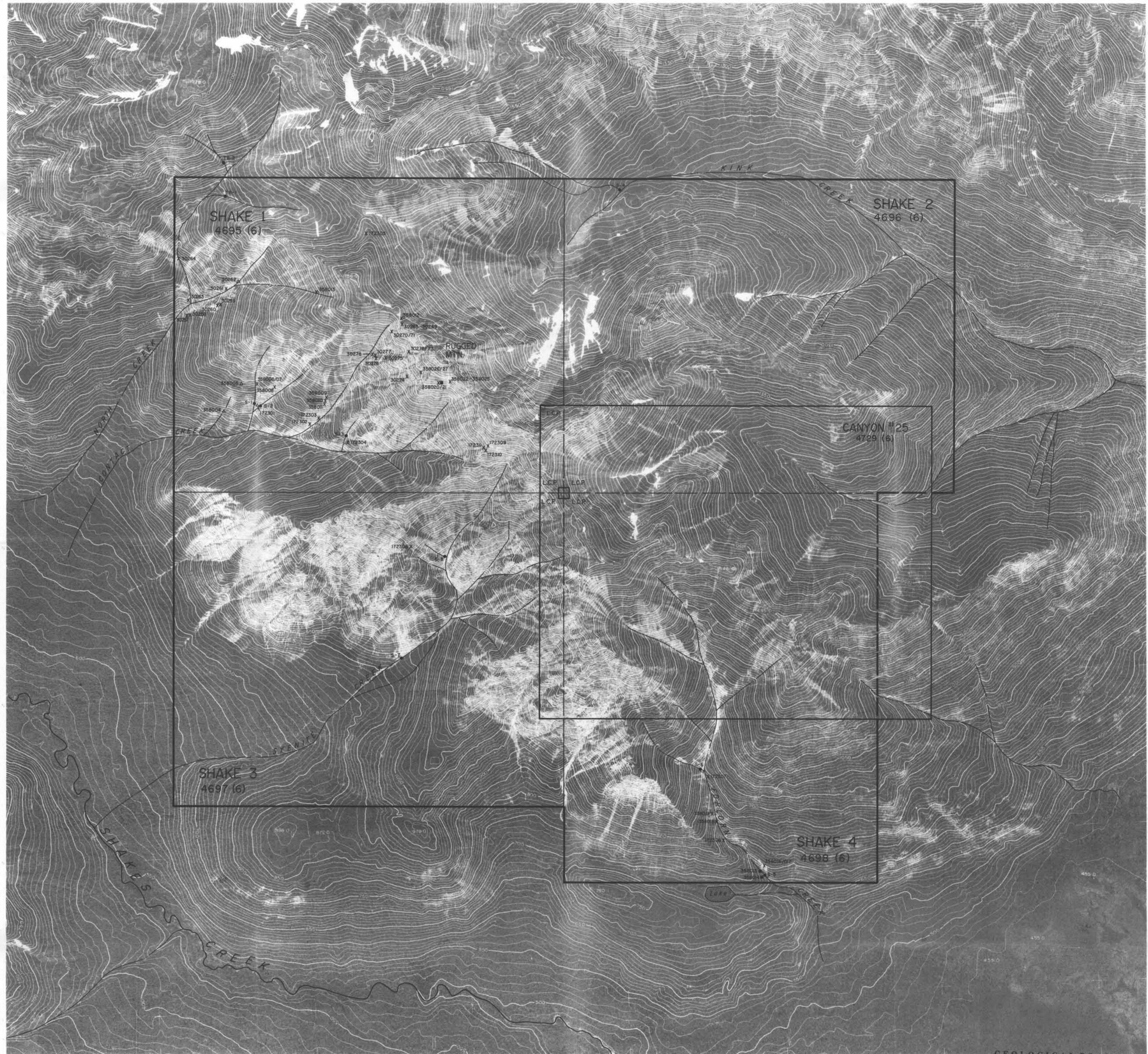
I, DAVID A. CAULFIELD, of 3142 Gambier Street, Coquitlam,
in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with offices at Suite 207, 675 West Hastings Street, Vancouver, British Columbia.
2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology.
3. THAT my primary employment since 1978 has been in the field of mineral exploration.
4. THAT my experience has encompassed a wide range of geological environments and has allowed considerable familiarization with geophysical, geochemical, and diamond drilling techniques.
5. THAT I am a Fellow, in good standing of the Geological Association of Canada.
6. THAT this report is based on fieldwork carried out under my direct supervision from June 16 through June 23, 1989 and on government publications and assessment reports filed with the Province of British Columbia.

DATED at Vancouver, British Columbia, this 25 day of September, 1989.



David A. Caulfield, F.G.A.C.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,127

SCALE 1:10,000

m 0 200 400 600 800 1000 m

Sample	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	In(ppm)	As(ppm)	Sample	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	In(ppm)	As(ppm)
30257	1.8	1.2	1220	12	42	40	358009	25	0.8	1585	12	84	10
30258	35	1.2	1220	12	42	55	358010	125	4.2	7910	8	94	35
30259	20	0.6	523	8	62	60	358011	1	1.2	3100	6	46	15
30260	40	<0.2	219	2	16	25	358012	20	<0.2	201	5	30	2
30261	60	0.6	924	<1	114	25	358013	<5	<0.2	189	4	20	<5
30262	15	0.2	134	2	26	10	358014	<5	<0.2	227	<2	52	15
30263	20	1.2	318	<2	42	20	358015	<5	<0.2	302	<2	44	<5
30264	28	1.2	409	10	66	15	358016	<5	<0.2	226	<2	30	<5
30265	730	0.4	80	14	48	>10000	358017	<5	<0.2	384	12	32	5
30266	530	0.2	151	24	66	100	358018	<5	<0.2	584	6	52	135
30267	370	<0.2	54	6	32	5120	358019	25	<0.2	128	8	24	45
30268	<10000*	6.2	80	14	40	5300	358020	80	1.2	659	4	42	20
30269	200	1.4	95	2	50	100	358021	<5	<0.2	1140	<2	48	15
30270	375	0.2	23	32	30	1495	358022	<5	<0.2	311	12	280	40
30271	180	<0.2	10	45	106	1315	358023	<5	<0.2	120	4	180	5
30272	20	0.8	23	468	720	40	358024	115	<0.2	195	4	24	55
30273	<40	0.8	133	12	54	50	358025	<5	<0.2	146	14	127	20
30274	30	0.2	72	12	42	60	358026	<5	<0.2	53	14	12	<5
30275	680	1.8	338	5	40	35	358027	<5	<0.2	884	48	246	35
30276	50	0.2	318	14	186	40	358028	<5	<0.2	280	100	100	<5
30277	35	0.2	10	6	96	25	358029	<5	<0.2	232	10	232	<5
30278	55	<0.2	136	14	106	15	358030	<5	<0.2	156	4	156	<5
172301	25	<0.2	855	<2	72	60	358031	10	0.8	119	10	10	<5
172302	790	53	>10000	10	522	60	358032	10	0.8	116	10	10	<5
172303	45	1.2	1095	<2	114	30	358033	10	0.8	116	10	10	<5
172304	5	0.2	855	18	40	10	358034	10	0.8	116	10	10	<5
172305	<5	<0.2	533	12	64	10	358035	10	0.8	116	10	10	<5
172306	5	<0.2	165	<4	84	30	358036	10	0.8	116	10	10	<5
172307	210	0.8	93	24	20	20	358037	10	0.8	116	10	10	<5
172308	1120	0.8	127	28	21	20	358038	10	0.8	116	10	10	<5
172309	95	3.2	1010	12	42	35	DAC 8-1	90	0.8	720	10	122	20
172310	60	1.2	243	8	20	10	DAC 8-2	40	3.8	384	14	114	30
172311	120	1.8	477	12	28	20	DAC 8-3	100	0.8	594	4	100	20
358004	30	0.2	319	28	66	5	DAC 8-4	<5	<0.2	87	4	104	15
358005	<5	<0.2	442	<2	112	5	DAC 8-5	<5	<0.2	223	10	90	25
358006	<5	0.6	1725	8	90	5	DAC 8-6	<5	<0.2	352	10	80	25
358007	260	<0.2	44	6	12	35	DAC 8-7	<5	<0.2	125	2	76	15

* 0.422 oz/ton Au

X Δ ■ ROCK SAMPLE (GRAB-OUTCROP, FLOAT, CHIP)

● SILT SAMPLE

LEGEND

CANDELA RESOURCES LTD.

SHAKE 1-4 CLAIM GROUP
**ROCK & STREAM
GEOCHEMISTRY**

LIARD MINING DIVISION, B.C.

EQUITY ENGINEERING LTD.

DRAWN. N.T.S. DATE. FIGURE.
J.W. 104 G/13 E JULY, 1989

