

# GEOCHEMICAL REPORT ON THE BARCLAY 1 AND 2 CLAIMS

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VANCOUVER, B.C.

ALBERNI MINING DIVISION

For

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Ву

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#### **SUMMARY**

Ashworth Explorations Limited carried out field exploration programs, consisting of geochemical rock and soil sampling, on the Barclay Claim Group on February 14 and October 12, 1988.

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The Barclay Claim Group consists of two contiguous mineral claims (30 units) in the Alberni Mining Division. The claims are situated 12 kilometres southeast of Port Alberni, B.C.

The Port Alberni-Mount McQuillan area has a lengthy production and prospecting history for lode and placer deposits, dating back to the 1860's. Past producing mines and prospects near the Barclay claims include the Debbie-Yellow Property (formerly the Vancouver Island Gold Mine and Victoria Showing), Regina Showing, Lizard Group, Thistle Mine, Havilah Mine, Black Panther Mine, Black Lion Showing, Golden Eagle Showing and the B and K Showing.

The subject claims are underlain by Triassic Karmutsen volcanics which have been overthrust onto Tertiary intrusives and Cretaceous Nanaimo sediments.

Previous work and the 1988 surveys have outlined a fault structure along Pat Creek on the Barclay 2 claim. Limited rock sampling has located anomalies up to 2900 ppb gold, 16,600 ppm copper and 14.8 ppm silver along the structure. Soil sampling has outlined anomalies in gold and copper associated with the fault.

A Phase I exploration program has been recommended at an estimated cost of \$35,000. It will consist of geological mapping, soil sampling, blasting and hand trenching with a main purpose of better defining the Pat Creek fault zone.

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#### 1. INTRODUCTION

This report was prepared at the request of Mr. Clive Ashworth to describe and evaluate the results of geochemical surveys on the Barclay Claim Group, Port Alberni Area, B.C. The surveys were carried out February 14 and October 12, 1988. The report also describes the property geology, area history and previous work from both published and unpublished reports.

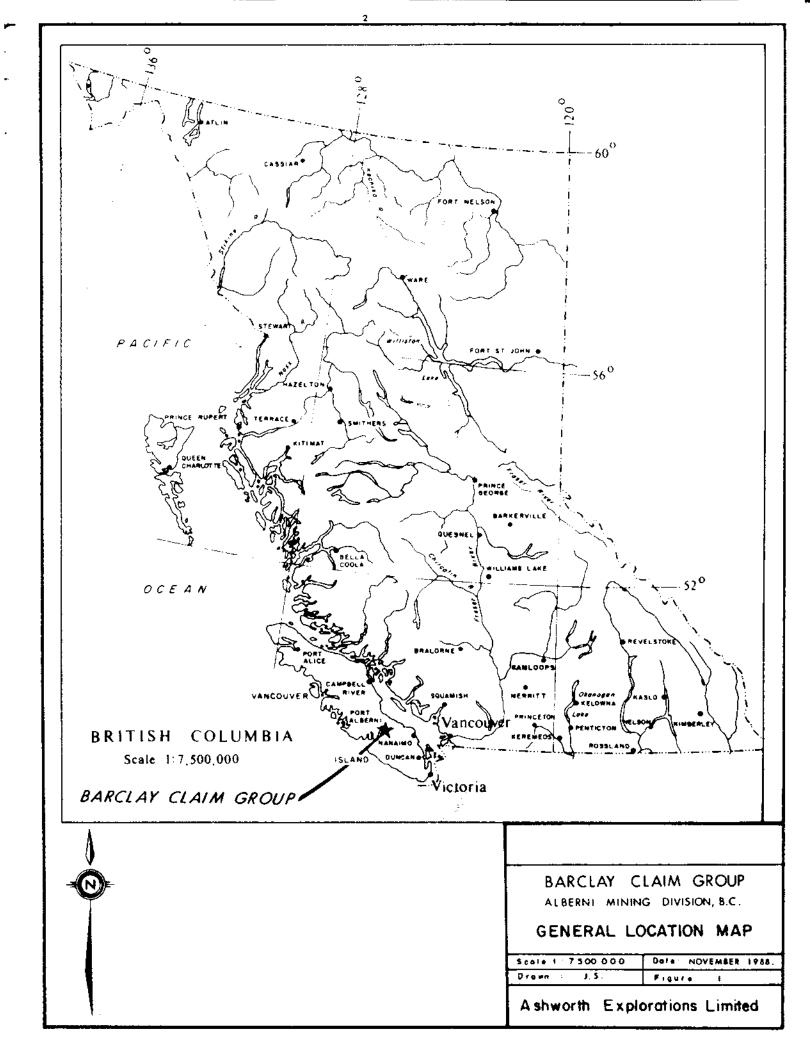
The writer supervised all fieldwork and has examined the claims on September 24, 25, 1985 and February 14, 1988. Vince Warwick (Geological Technician) was Party Chief on October 12, 1988.

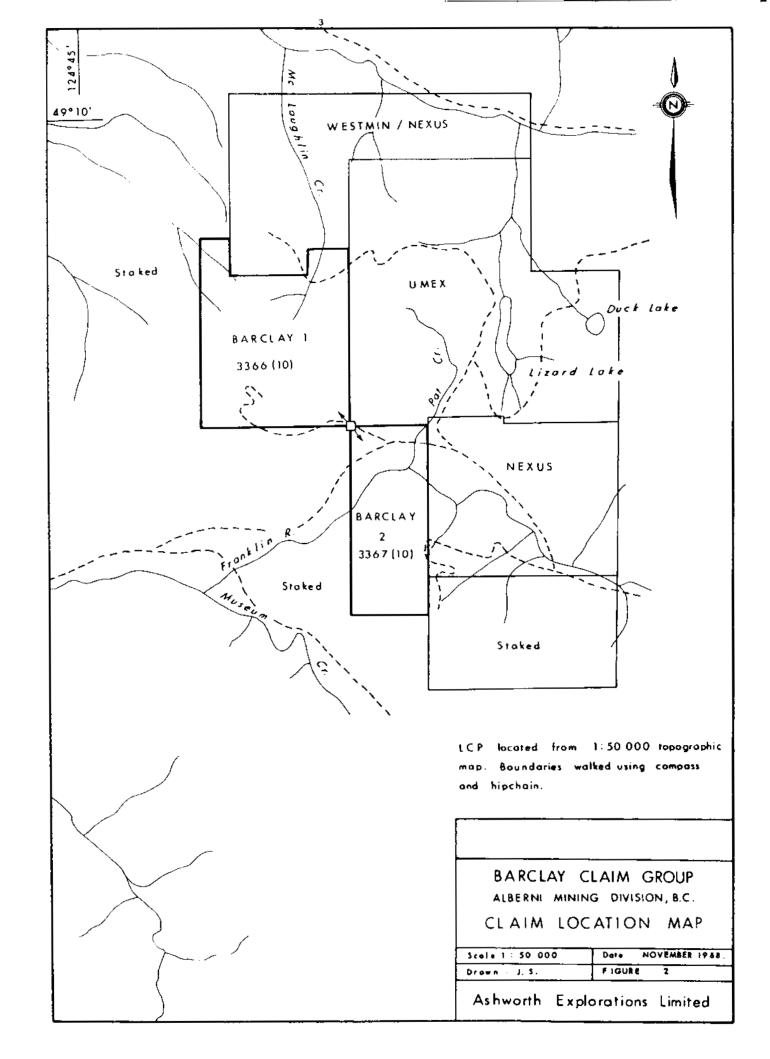
#### 2. LOCATION, ACCESS AND PHYSIOGRAPHY

The Barclay property is located 120 kilometres west of Vancouver or 12 kilometres southeast of Port Alberni on Vancouver Island (see Figure 1). It is within NTS mapsheet 92F/2 in the Alberni Mining Division.

Access is from Port Alberni along the Museum Creek and Franklin River haul road, leading to a series of logging roads operated and maintained by MacMillan-Bloedel Ltd. There is four wheel drive access to Mount Patlicant which lies in the centre of the Barclay 1 claim. The Franklin River haul road cuts through the north half of the Barclay 2 claim, providing good access.

The property is situated within the western coastal forest region characterized by abundant rainfall and heavy growth of large timber including fir, hemlock and cedar. A large portion of the Barclay 1 claim has been logged recently. The Barclay 2 claim is mainly second growth forest.





Patlicant Mountain is located in the middle of the Barclay 1 claim. Slopes vary from shallow to steep, with the steepest area being the ridge to the southwest of Patlicant Mountain where the slopes are measured at 40 degrees. Highest elevation is 1236 metres at the top of Patlicant Mountain to a low of 320 metres giving a total relief of 1206 metres. Drainage is into China Creek to the north and Franklin River to the south, both of which flow into Alberni Inlet. The Franklin River flows westerly through the northern half of the Barclay 2 claim.

#### 3. PROPERTY STATUS

The Barclay Claim Group consists of two mineral claims totalling 30 units (Figure 2). The total area, correcting for overlap, is approximately 28 units or 750 hectares (1730 acres). The claims are wholly owned by Mr. Clive Ashworth, and have been optioned to 331812 B.C. Ltd., and re-optioned to Skyhawk Resources Inc.

Pertinent claim data is given below:

NAME	RECORD #	UNITS	EXPIRY DATE
Barclay 1	3366	20	Oct. 15/88*
Barclay 2	3367	10	Oct. 15/88*

<sup>\*</sup> Date up to which 1988 assessment work is accepted by Gold Commissioner to be applied to claims.

#### 4. AREA HISTORY

Mineral prospecting in the area has been active since placer gold was mined on China and Franklin Creeks during the 1860's.

Development of lode gold prospects soon followed with eight properties in production by the 1940's. Low gold prices combined with low tonnage of the vein deposits inhibited further development.

The following quoted descriptions of mineral occurrences in the Port Alberni area are taken from "Sicker Group Compilation, A Description of Mineral Deposits and Occurrences", by MPH Consulting.

Debbie - Yellow Property
(formerly the Vancouver Island Gold Mine and Victoria Showing) (5.0 kilometres northeast of Barclay Claims)

The area is underlain by highly altered massive, tuffaceous, slightly porphyritic, and amygdaloidal andesites of the Sicker Group. Three main quartz veins follow well developed shears and contain a small amount of pyrite and some free gold. As well, a 40 foot wide shear zone has been extensively altered by ankerite, quartz stringers, occasional pyrite veinlets, and kaolinitization.

Recorded production in 1896, 1898, 1933-36, and 1939 totals 483 tons of ore yielding 384 oz Au, 52 oz Ag, and 194 lb Cu.

The Mac vein is traced for 250 feet and ranges from 3 to 18 inches wide, averaging 5 to 6 inches. Sixty-three samples taken over the 250 feet averaged 6 inches in width and 3.69 oz Au/ton. The highest assay was 20 oz Au/ton. A 40 ton shipment from the Mac vein returned 2.9 oz Au/ton and 0.5 oz Ag/ton.

The property is now owned by Westmin Resources Ltd. and Nexus Resource Corp.

Three new zones of gold mineralization were discovered on the Debbie property during 1985-86 and are described as follows:

1) The Mineral Creek Gold Zone: A fault controlled alteration zone with mafic volcanic rocks altered to carbonate, sericite, pyrite and quartz. The zone has been outlined for a strike length of 1,000 feet. The best intersection from 1986 drilling was .246 oz/ton gold over 13.7 feet.

- 2) The Linda Gold Zone: Consists of at least two east dipping quartz vein structures. Two holes tested this structure in 1986, and the best result was .578 oz/ton Au over 9.8 feet.
- 3) The 900 Gold Zone: Consists of mineralized magnetite, jasper, sulphide bearing chert, quartz vein stockwork and a carbonate altered fault zone. This zone showed the most potential with a 1987 drill intersection of 1.137 oz/ton gold over 44.3 feet. Westmin/Nexus/Angle have reported (News Release, November 30, 1987) a new intersection on the 900 zone of 4.078 oz/ton Au over 47.1 feet, including 9.782 oz/ton Au over 19.0 feet.

Work during 1988 consisted of driving an exploration tunnel for 1.9 kilometres through McLaughlin Ridge. The tunnel is to be used for systematic drilling and sampling of the Mineral Creek and Linda Zones (Northern Miner, September 12, 1988).

#### Regina (3.0 kilometres east of subject claims)

#### Geology:

Lenses and veinlets of quartz mineralized with pyrite, sphalerite, chalcopyrite, and some galena occur in shears in locally silicified and pyritized Sicker Group andesites. A 1976 report states that the host rock is Sicker dacitic to rhyolitic breccia. Lower down the hillside are 2 showings of highly silicified, leached, pyritic, ankeritic andesite (similar to the mylonite zone on Vancouver Island Gold property [G3]?)

#### Mineralization Features:

Assays include 0.17 Au/T, 5 oz Ag/T, 5% Cu - grab from 20 T selected ore on dump in 1930; 0.66 oz Au/T, 14.0 oz Ag/T - grab sample from dump in 1936; 0.02 oz Au/T, 1.8 oz Ag/T, 2.57% Cu, 9.01% Zn, 1.98% Pb - grab sample from dump in 1964; 0.64 oz Au/T, tr Ag - large bulk sample from the "Big Showing" (carbonatized andesite) in 1936.

The quartz lenses and silicified zones are up to 2' wide but mineralized portions are very discontinuous.

#### Thistle (4.0 kilometres southeast of subject claims)

The area is underlain by a belt of upper Sicker Group volcanic rocks folded into a large complex anticline. The mine is located within a package of rocks known as the Flow Complex (probably correlative to

Muller's Sediment-Sill Unit) which unconformably (?) underlies the Buttle Lake Formation. The Mine Flow Unit of the Flow Complex hosts the mine and 15 of 16 additional Cu and/or Au showings on the property.

At the mine, a highly variable succession of basaltic flows, flow breccias, and massive to bedded and graded tuffs and cherty tuffs is mapped.

Mineralization is found within relatively thin stratabound to crosscutting? intervals of moderate to very strong chlorite alteration of the basaltic host rocks. Sericite-epidote alteration also occurs, but apparently is not associated with mineralization.

The ore consists of gold-bearing pyrite-chalcopyrite (and local magnetite) in quartz-calcite gangue occurring in 3 or 4 main stratabound? zones of discontinuous anastomosing veins and veinlets to massive to semi-massive beds?

The Thistle Mine was reported by early workers to be a skarn deposit in altered limestone intruded by fine-grained diorite.

The ore occurs in layers 5 to 45 cm thick. Assays from 1983 sampling of the old workings range from 3.8-11.8% Cu, 0.14-2.16 oz Au/T, and 0.39-1.04 oz Ag/T. Older reports indicate that ore was found in lenses up to 18' by 25' in size. Diamond drilling in 1984 (NW of the mine) yielded assays ranging from 0.046 oz Au/T to 0.284 oz Au/T over massive sulphide intersections of 2-27 cm. The best assay was 0.514 oz Au/T over 20 cm of chloritic basalt including 2 cm of massive pyrite. A news release (October 22, 1985) states that the exploration target on the Thistle property is a volcanogenic deposit of at least 3 million tons of 0.2 oz Au/ton and 2% Cu.

#### Havilah (4.5 kilometres east of subject claims)

Sicker Group andesite is intruded by Jurassic diorite and by Tertiary hornblende-feldspar and quartz-feldspar porphyry stocks, dykes, and sills. Ribbon-quartz veins and lenses containing abundant pyrite, sphalerite, and galena and lesser chalcopyrite and arsenopyrite occur in shears in the andesite. Occurs on the same shear zone at Black Panther and Black Lion.

The recorded production in 1936 and 1939 totals 1,406 tons yielding 259 oz Au, 1,404 oz Ag, 4,243 lb Cu, and 12,676 lb Pb. There are three main veins.

The Gillespie vein is the lowest. It is 3 to 34 inches wide and has been traced for 650 feet in 5 trenches. Most of the production came from the Gillespie vein. Assays range up to 0.4 oz Au/ton, 2.2 oz Ag/ton, 0.4% Pb, and 0.30% Zn over widths from 4 to 63 inches (Ref. 1-1936, 1944). Some oxidized samples taken over 1 foot assayed as high as 7 oz Au/ton and 3 oz Ag/ton. Average grade of the ore shipped from the Gillespie vein was 0.235 oz Au/ton and 1.28 oz Ag/ton. The vein was faulted off in two of the three adits, and could not be re-discovered.

The Alberni vein consists of a 10 foot wide by about 70 feet long zone of intense shearing containing 1 to 3 lenticular quartz veins 4 to 24 inches wide. Assays of 3.66 oz Au/ton and 5.2 oz Ag/ton over 4 inches and 1.8 oz Au/ton and 2.3 oz Ag/ton over 20 inches are reeported.

The McQuillan vein was prospected with a 57 foot adit. It ranges up to 8 inches in width. Assays of up to 1 oz Au/ton over 8 inches and 1.6 oz Ag/ton over a different 8 inches, are reported.

A fourth vein on the easterly side of the cirque 1 to 2 feet wide assayed 0.16 oz Au/ton and 0.6 oz Ag/ton from an oxidized 2 foot sample.

#### Black Panther (6.5 kilometres southeast of subject claims)

Ribbon-quartz lenses containing variable amounts of sulphides, mainly pyrite with minor galena and sphalerite occur in a shear zone which follows the contact of andesite lava on the west and diorite breccia on the east. The wall-rock of the shear is strongly altered by ankeritic carbonate for widths of a few inches to 30 feet which locally is cut by numerous quartz stringers.

The shear zone has been traced for at least two miles but the best mineralization is at the Black Panther workings where quartz lenses are one inch to three feet thick and up to 40 feet long. Four samples containing "heavy sulphides" from the 2700 and 2790 adits assayed from 2.30 to 2.88 oz Au/ton. A 1964 assay from the dump is reported as 1.16 oz Au/ton, 2.1 oz Ag/ton, 0.14% Cu, and 1.73% Pb.

Production in 1947, 1948, and 1950 totalled 1,890 tons which yielded 509 oz Au, 953 oz Ag, 498 lb Cu, and 12,319 lb Pb, and at least 4,478 lb Zn.

#### Black Lion (6.5 kilometres southeast of subject claims)

Similar to <u>Black Panther</u>, as the <u>Black Lion</u> is on the southerly extension of the same shear zone as <u>Black Panther</u>. Zones of quartz-sulphide (pyrite, galena, gold values) stringers are found in a strongly carbonatized zone 10 inches to 9 feet wide with local evidence of strong shearing.

Open cuts exposed the "vein" for 175 feet with another exposure located 1,300 feet to the south. The quartz-sulphide stringer zone is 12 to 18 inches wide. A sample of quartz and sulphides assayed 1.2 oz Au/ton. Samples of quartz-sulphide stringers and carbonatized country rock ranged from 0.27 to 0.43 oz Au/ton. The carbonatized rock itself assayed at trace to 0.03 oz Au/ton.

#### Golden Eagle (8.0 kilometres east of subject claims)

Sicker Group andesite is cut by a small intrusion of feldspar porphyritic diorite which is in turn cut by a vein of ribbon quartz oriented 030/70E, which contains pyrite and minor sphalerite, galena, chalcopyrite, arsenopyrite (about 10% total sulphides).

The vein varies from a few inches to 5' wide and has been traced for 400' along strike and 325' vertically. The vein is widest in the lowest drift and is reported to appear to widen downwards. A tunnel driven 400' below the lowest drift never intersected the vein despite being driven 1400' beyond the estimated intersection point. Assays of up to \$103 Au/T, 3 oz Ag/T, 1% Cu are reported from the 1890's although samples taken in 1964 assayed 0.05, 0.10 oz Au/T; 0.7, 0.3 oz Ag/T; 0.1%, tr Pb; 0.85, 0.37% Zn over 3', 2'.

#### B and K (8.0 kilometres east of subject claims)

Many widely scattered narrow quartz veins and stringers containing pyrite, lesser galena, minor chalcopyrite, sphalerite occur in Sicker Group andesite tuffs and flows, basalt, and black chert, often in shear zones. A zone of highly carbonatized andesite 6-25' wide contains minor pyrite, galena, sphalerite in narrow veinlets. In the southern workings (S of Summit Lake) veins are surrounded by strong ankeritic alteration zone.

Assays from various veins range from tr-2.56 oz Au/T, tr-3.32 oz Ag/T, tr-0.15% Cu from grab samples and widths to 5'. No assays are given for the carbonatized zone. An airborne geophysics survey located a mag anomaly and isolated conductors at the Lakeview workings.

#### Lizard Group (northeast and adjacent to Barclay 1 and 2 claims)

Sicker Group cherts, andesitic to dacitic fine-grained tuffs or cherty tuffs, and agglomerates overlain by Buttle Lake Fm limestone occur on the easternpart of the property. Small to large dykes and plugs of Tertiary (?) feldspar porphyry intrude the Sicker rocks, which are locally heavily pyritized adjacent to the dykes. Narrow quartz veins containing massive gold values are reported to occur in a tuffaceous pyritic chert layer below the quartz vein-bearing andesite.

Assays of up to 0.13 oz Au/T, 0.70 oz Ag/T, 0.13% Cu over 2 metres are reported from the Discovery showing. Values of up to 155 ppb Au are reported from the tuffaceous chert layer. Soil sampling located a triangular area of anomalous Au (up to 3500 ppb Au) with a smaller coincident Cu anomaly SE of Lizard Lake. An airborne geophysical survey located an EM conductor as well as a mag anomaly coincident with a large number of weak EM conductors in the area (Neale, 1984).

In 1984, Noranda Ltd. performed detailed geological mapping, soil sampling, magnetometer and induced polarization surveys on the Lizard Group. Soil sampling outlined four major coincident gold-arsenic anomalies which included gold results up to 1900 ppb. North-south trending induced polarization and magnetic anomalies correlated with geological trends and to a lesser extent, soil geochemical anomalies (Wilson, 1984).

One diamond drill hole (104.84 metres) was drilled later in 1984 to test a broad gold soil anomaly coincident with a zone of low conductivity I.P. The hole intersected weakly pyritized acidic-intermediate Sicker volcanic rocks. The highest gold values intersected were .21, .24 g/T and 300 ppb.

#### 5. PREVIOUS WORK

From 1964 to 1966, Gunnex Limited carried out regional geological mapping, prospecting, silt and soil sampling over the E and N Railway Land Grant. The geology of the Barclay claims as mapped by Laanela (Gunnex Limited, 1964 - 66) is shown on Figure 3.

In 1985 Ashworth Explorations Limited performed geochemical rock and soil sampling on the Pat 1 (now the Barclay 2) and Pat 3 (now the Barclay 1) claims on behalf of Victoria Diego Resource Corporation. Anomalies in copper (>100 ppm) were found in soils and silts in the northern one-third of the Pat 1 claim.

In 1986, further prospecting and contour soil sampling was done by Ashworth Explorations Limited for Victoria Diego Resource Corporation. The most significant results were from rocks taken along a south-flowing creek (Pat Creek) in the northeast corner of the Pat 1 (Barclay 2) claim. Results from select samples include: PT-86-19 - 16,600 ppm (1.7%) copper, 14.8 ppm silver, 880 ppb gold and PT-86-8 - 2900 ppb (.09 oz/ton) gold. The creek was mapped as a fault which could be acting as a conduit for mineralizing solutions.

#### 6. PROPERTY GEOLOGY

The property geology as mapped by Laanela (1965) is shown on Figure 3. The area was mapped at a 1:50,000 scale in 1986 by Sutherland-Brown et al (GSC Open File 1272). Correlation between maps in reasonably good.

The property is underlain by three units:

- 1) Tertiary intrusions
- 2) Cretaceous Nanaimo Group sediments
- 3) Triassic Karmutsen basaltic volcanics.

#### Tertiary Intrusions (Unit 3)

These intrusions underlie 70% of the Barclay 1 and the western half of the Barclay 2. They are described as a quartz diorite and quartz diorite porphyry with hornblende and plagioclase phenocrysts.

Sutherland-Brown et al (1986) has mapped the intrusives on the Barclay 2 as granodiorite of Jurassic age.

#### Nanaimo Group Sediments (Unit 2)

Cretaceous sediments of the Nanaimo Group occur mainly as "islands" on the Barclay 1 and extend into the northwest corner of the Barclay 2. In the Patlicant Mountain area they are dark gray-black siltstone, sandstone, carbonaceous and fossiliferous shale, and minor coal.

#### Karmutsen Formation Volcanics (Unit 1)

These are found in the eastern half of the Barclay 2 claim. Generally they occur as dark green-purplish theolitic pillow basalts.

#### Structure

The most prominent structural feature on the property is a north-south trending thrust fault which follows the east boundary of the Barclay 1 claim and transects the middle of the Barclay 2 claim. This is interpreted as a thrust fault in which

the Karmutsen volcanic rocks have been overthrust upon the younger sediments and intrusives.

An assumed normal fault is mapped along Pat Creek. Shearing of the volcanic rocks along Pat Creek was observed in 1988 which confirms the probable presence of a fault.

#### 7. 1988 PROGRAM

#### 7.1 SCOPE AND PURPOSE

During October 1988 a field crew consisting of one prospector and two geotechnicians completed rock sampling and geochemical soil sampling over a grid placed on the north half of the Barclay 2 claim. Also, during February 1988, the writer and one prospector visited the property and took two rock samples.

The purpose of the October 1988 program was to follow up on the 1986 rock sample anomalies by further prospecting and soil geochemistry.

#### 7.2 METHODS AND PROCEDURES

A grid was laid out and used as a control for all surveys (Figure 3). A baseline was flagged at azimuth 360 degrees for 300 metres. Cross-lines were surveyed using compass, hipchain and flagging at 50 metre line spacings and 25 metre station spacings. Total line surveyed, including baseline and cross-lines was 1.7 kilometres.

A total of 59 soil samples were collected with a grub hoe from the B horizon (approximate depth of 25 centimetres), placed into marked Kraft-paper bags, field dried and sent to Acme Analytical Laboratories Ltd., Vancouver, B.C. Samples

were analyzed for gold (aqua regia) and multi-element ICP (see Appendix A for analytical results and Appendix B for analytical techniques).

A total of four rock samples were collected and analyzed for gold (fire assay) plus multi-element ICP by Acme Analytical Laboratories Ltd. (See Appendices A and B).

#### 7.3 ROCK GEOCHEMISTRY (Figure 3)

Results for two of the four rock samples collected in 1988 are considered significant.

BAR88-VR1 assayed 1180 ppb gold (.03 oz/ton) and BAR88-VR2 assayed 1220 ppb gold (.035 oz/ton), 6.6 ppm silver (0.2 oz/ton) and 10,119 ppm copper (1%). Both were select subcrop samples from a rusty dark green basalt containing 1 to 2% pyrite.

Samples Bark 1 and 2 were select samples taken from a rusty brecciated dark green basalt with minor pyrite. Results were not significant.

#### 7.4 SOIL GEOCHEMISTRY (Figure 3)

Statistical histograms have been plotted for gold and copper (Appendix C).

Anomalous thresholds have been chosen using natural "breaks" in the histograms.

#### Gold

Gold is considered anomalous above 40 ppm. A three point anomaly occurs along the baseline from 1+50S to 2+50S and includes values of 51, 66 and 125 ppb. All three samples were taken in close proximity to Pat Creek. The anomaly is open

to the west. Three other spot gold anomalies occur on the grid including the high value of 182 ppb at L0+00 0+25W.

#### Copper

The histogram for copper does not show a well defined background population, probably due to the limited number of samples collected. A small break can be seen from 120 to 130 ppm, hence above 130 ppm is considered anomalous.

One broad irregular-shaped anomaly occurs in the northern part of the grid. This anomaly includes ten values above 130 ppm Cu and a high result of 246 ppm.

A three point anomaly of 160, 188 and 196 ppm Cu occurs in the northwest grid area and is open to the north.

Two copper anomalies along the baseline correlate with two gold anomalies.

#### 7.5 DISCUSSION

Previous work and the 1988 geochemical survey has outlined one main anomalous area along Pat Creek in the northeast corner of the Barclay 2 claim. Select rock samples taken along Pat Creek include values of 2900, 1220, 1180 and 880 ppb gold, plus copper up to 16,600 ppm and silver up to 14.8 ppm. The significant gold and copper soil anomalies also occur along and near Pat Creek.

A major north-south fault lineament occurs 1.0 kilometre east of the Barclay claim. Mineralized showings along this lineament include Westmin's Debbie-Yellow property, Vancouver Island Gold Mine, Victoria showing, Regina showing and the Lizard group (all discussed previously in this report). The writer

believes that the Pat Creek fault on the Barclay 2 could be a branch or a splay off the above mentioned mineralized lineament.

#### 8. CONCLUSIONS

The writer concludes that the Barclay Claim Group has the potential for hosting a structurally controlled precious metal deposit for the following reasons:

- The subject claims lie in close proximity to numerous past producing mines and metallic mineral occurrences within the Mount McQuillan mining camp.
- The 1988 and previous geochemical work has outlined a fault zone on the Barclay 2 claim which hosts significant values in gold, copper and silver from rocks and soils.

For these reasons, further exploration work is warranted.

#### 9. RECOMMENDATIONS

Phase I

- 1) Lay out approximately 17 kilometres of grid lines to cover the northern half of the Barclay 2 claim. Line spacings should be 50 metres with 25 metre station spacings.
- 2) Soil sample the grid at 25 metre stations near Pat Creek and at 50 metre stations elsewhere on the grid.
- Perform blasting and hand trenching along Pat Creek to better expose the showings.
- 4) Systematically chip sample the showings.
- 5) Geologically map and rock sample on the grid. Map and prospect the Barclay 1 claim and the south half of the Barclay 2.

# 10. PROPOSED BUDGET

# (Project geologist, field geologist, prospector-blaster, 3 geotechnicians; 7 field days)

Project Preparation	\$ 900
Mob/Demob (includes transportation, freight and wages)	2,240
Field Crew	10,360
Field Costs	5,915
Lab AnalysisSay 450 silt and soil samples @ \$15/sample\$ 6,750Say 60 rock samples @ \$18/sample1,080	7,830
Supervision and Report	3,450
Sub-total	\$ 30,695
Administration 15%	4,604
Total	\$ 35,299
(Say	\$ <u>35,000</u> )

Respectfully submitted association of the Leriche, B.Sc., F.G.A.C.

# PERSONNEL

The following personnel were presented on the Barclay Claim Group during the 1988 field program.

Peter Leriche	Project Geologist	February 14, 1988
John Fleishman	Prospector	February 14, 1988
Vince Warwick	Party Chief/Prospector	October 12, 1988
Brian Chore	Geotechnician	October 12, 1988
Denis Ross	Geotechnician	October 12, 1988

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#### CERTIFICATE

- I, PETER D. LERICHE, of 3126 West 12th Avenue, Vancouver, B.C., V6K 2R7, do hereby state that:
- 1. I am a graduate of McMaster University, Hamilton, Ontario, with a Bachelor of Science Degree in Geology, 1980.
- 2. I am a Fellow in good standing with the Geological Association of Canada.
- 3. I have actively pursued my career as a geologist for ten years in British Columbia, Ontario, Yukon and Northwest Territories, Arizona, Nevada and California.
- 4. The information, opinions, and recommendations in this report are based on fieldwork carried out under my direction, and on published and unpublished literature. I was present on the subject property on February 14, 1988.
- 5. I have no interest, direct or indirect, in the subject claims.

LERICHE

Peter D. teriche, B.S., F.G.A.C.

Dated at Vancouver, January 1909

### ITEMIZED COST STATEMENT - BARCLAY GROUP

(Geologist and prospector, Feb. 14/88, 1/2 day in field; 3 geotechnicians, Oct. 12/88, 1 day in field)

Project Preparation			\$ 200.00
Mob/Demob (includes transportation, freight and	wages)	)	1,260.00
Field Crew Project Geologist \$325/day x .5 days Prospector \$250/day x .5 days Party Chief \$250/day x 1 day 2 Geotechnicians \$210/day x 2 mandays	\$	162.50 125.00 250.00 420.00	957.50
Field Costs Food and Accommodation \$70/day x 4 mandays Communications Supplies 4X4 Truck \$110/day x 2 days	\$	280.00 25.00 50.00 220.00	575.00
Lab Analysis 63 silt and soil samples @ \$11.25/sample Au geochem/AA, multi-element ICP 2 rock samples @ \$17.25/sample Fire Assay Au, multi-element ICP 2 rock samples @ \$13.25/sample Geochem Au, multi-element ICP	\$	708.75 34.50 <u>26.50</u>	769.75
Supervision and Report			500.00
Sub-total			\$ 4,262.25
Administration 15%			639.33
Total			\$ 4,901.58

# APPENDIX A

ANALYTICAL RESULTS

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

GEOCHEMICAL/ASSAY CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIBESTED WITH 3ML 3-1-2 HCL-HNO3-H20 AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MH FE CA P LA CR MG BA TI B W AND LIMITED FOR MA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: ROCK AUSS BY FIRE ASSAY FROM 1/2 A.T.

DATE RECEIVED: FEB 15 1988

DATE REPORT MAILED: Feb 17/88

ASSAYER. ... LONY D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

ASHWORTH EXPLORATION PROJECT-165 File # 88-0414

BARK-1 1 105 3 86 .1 64 27 114° 6.93 9 5 NO 1 35 1 2 3 215 3.01 .047 5 116 3.44 63 .24 2 3.39 .05 .02 1 .001
BARK-2 1 237 2 47 .1 58 17 535 4.53 6 5 NO 1 50 1 2 6 146 1.91 .047 4 94 1.76 106 .35 11 3.31 .27 .02 1 .001

#### GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 BCL-MM01-H20 AT 55 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MR FE SE CA P LA CE MG BA TI B W AND LIMITED FOR WA E AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TIPE: PI-PZ SOIL P3 SILT P4 ROCK AU\* ANALYSIS BY ACID LEACH/AR FROM 10 GM SAMPLE. P - 20 mesh, Pulversed

				- SAMP	LE TIP	I: Pi-	P2 SO.	L F3 5	SILT P4	ROCK											20 me	εA.	pulv	nga	١.						
DATE RECE	IVED	: (	CT 18	1988	DA?	PE R	EPO	RT M	AILE	ED:	00	t s	5/8	f	SIC	GNED	BY	<u>(</u>		٠	0. 70	tt, c	. Liong	3.CE	J, J.1	ANG; (	SRTIFI	ED 8.0	. 1551	1225	
							ASF	WOR	TH E	XPL	ORAT	ION	LTD		Fi	le :	# 88	3-52	71	P	age	1									
SAMPLE #	MO PPN	Cu PPM	Pb PPK	Zo PPM	Ag PPN	Hi PPM	Co PPM	Ko PPK	Te 1	As PPK	D PPM	PPK Au	Th PPM	ST PPN	Cd PPK	SD PPN	Bi PPM	PPM		-		Cr PPK			Ti 3	??N	13	¥e 1	į	¥ PPX	Au r PPB
BAR 88 LO+00 2+00W BAR 88 LO+00 1+75W	1	127 160	10 10	71 86	.1 .1	31 36	24 28		5.77 6.43	10 24	§ §	CN Ok	1 2	40 32	1	2	2	152 152			7	52 58		47 13	.34 .31	_	5.20 7.27	.02 .02	.02	1	3 {
BAR 88 LO+00 1+50W	i	196	10	67	.1	36		1126		ž	Ś	ND	i	30	ī	2	2	160			5	49		29	.40		3.98	.02	.03	ı 1	14
BAR 88 10+00 1+25W	1	108	12	6.6	.1	2.6	19	644	6.17	3	5	KD	ž	36	1	2	Ž				6	48		39	. (3		2.93	.02	.03	i	13
BAR 88 L0+00 L+0CW	1	97	7	59	.1	24	10	383	5.51	12	5	HD	1	34	1	2	2	149	.63	. 053	3	46	. 82	22	.40		2.64	.02	.02	1	10
BAR 88 LO+00 0+75W	1		9	11	.1	30	14		5.68	1	5	MD	2	33	1	2	2	146			4	53		29	.33		4.15	.02	.03	1	,
BAR BR 10+00 0+50W	1	103 64	7 10	74	.1	25	13		8.51	2	5	ND	2	38	1	2	2	160		.128		52		25	.32	-	3.43	.02	.03	1	19
BAR 88 LO+00 O+25W BAR 88 LO+DO O+00W	1	130	10	67 91	. <b>1</b> .1	19 32	10 27		7.09 6.30	7	5	AD OK	1	46	1	2	2	182 165		.081	4	50 55		21 31	.19	_	2.45 3.40	.02	.02	1	182
BAR 88 L0+50S 2+00W	i	42	13	83	.1	23		593		17	5	NO	1	33	Ī	2	2			.158	3	57		44	.47		2.26	.02	.02	1	6
BAR 88 10+505 1+75W	1	188	19	121	.1	50		3053		15	5	jiT)	2	21	1	2	2	126	. 65	.103	14	63		85	. 19	4	4.27	.02	.06	1	1
BAR 88 LO+50S 1+50V		100	11	98	.1	31	17		6.86	9	5	ND	1	24	1	2	2	197	.40		5	58		64	. 30		3.22	.02	.02	1	1
BAR 98 LO+30S 1+25¥ BAR 88 LO+30S 1+00¥	-	131 140	7	99 83	.1 .1	31 26	19 13		6.16 7.63	12 10	5	ND ND	1 2	30 29	1	2 2	2	158 208		.081	5	46		29	.40	-	3.85	.02	. 03	1	4
BAR 88 LO+50S 0+75W		134	8	83	.1	28	15		6.12	\$	5	ND ND	1	32	1	2	2	151		.125	1	62 58	.82	27 39	.49	_	2.96 4.03	.02 .02	.04 .03	1	16 13
		-	•		•	•-			-	·	•	u	•	31	٠	•	•				,	,,	.,,,	37		•	7.03	.02	. 53	•	1.2
BAR 98 LO+50S 0+50V	-	136	10	81	1.	12	16		6.13	16	5	ND	1	41	1	2	2	157		.092	4		1.11	34	. 35		3.76	.02	.02	1	24
BAR 88 10+505 0+25¥ BAR 88 L0+50S 0+00W	1	67 113	10 6	66 69	.1	17 27	9	384 692	5.76	15 10	5 5	ND MD	1 1	32 39	1	2	2	188 249	.47	.037	4	48 66	. 48 . 80	45	.37 .50		2.50 3.25	.01 .01	.01 .01	1	8
BAR 88 L1+00S 2+00W	_	104	15	116	-1	46		1023		37	3	עת עות	1	27	1	4	2	105		.057	9		1.16	34 117	.09	-	3.25	.01	.00	1	9
BAR 88 L1+005 1+75W		100	34	106	.i	ij	21	966		33	Š	ND.	i	24	i	į	2	106		.052	ģ		1.21	108	.09	-	3.60	.01	.04	ż	i
BAR 88 £1+005 1+25¥	1	153	11	80	.1	34	16	<b>{</b> 111	7.29	39	5	<b>F</b> D	2	29	1	2	2	206	.11	.040	4	74	1.10	40	. 43	2	4.66	.02	.03	1	1
BAR 88 L1+00S 1+00W	2	160	15	81	.2	26		2585		20	5	ΠĎ	2	32	1	1	3	169				<b>\$7</b>	.67	63	.21		4.48	.02	.02	1	1
BAR 88 L1+00S 0+75W	1	55	10	90	.3	18		118		20	5	ND.	1	- 11	1	2	2	106			3	35	.60	80	.20	-	1.61	.02	. 02	1	1
BAR 88 L1+005 0+50V	1	146 179	21 13	98 118	.1 .2	42		1076 1482		26 39	5	NO Or	2	12 38	1	2	2 2	147 138		.059	4		1.55	43 55	.24 .24		3.42	.01	.04 .04	1	6 22
BAR 88 L1+005 0+25W		113	17	112	• 4	10	10			33	,	•0	2	20	•	-	-	136	1.10	.033	•	97	1.04	"	.29	14	3./1	.02	, 44	1	11
BAR 88 L1+50S 2+00W	I	31	6	39	2.5	1	4	157		17	5	M D	1	18	ī	50	2			.026	3	19	.12	65	.14		.64	.01	.02	I	1
BAR 88 11+505 1+50W	1 1	84 20	13	67 46	.1 .1	30 10	11	261 146		30 17	5 5	NO On	2 1	22 22	1 1	3	2	153 134		.033	6	56 33	.78 .30	5B 36	.09 .10	-	3.94 1.28	.01 .01	.02	1	1
BAR 88 L1+505 1+25W BAR 88 L1+50S 1+00W	1	8	5	33	.1	10	3		2.11	5	5	370	1	22	1	2	2	103		.029	4	17	.15	25	.27	_	.59	.01	.02	1	19
BAR 88 LI+50S 0+75W	i	74	8	58	.1	18	ģ	233		13	5	KD	i	26	i	2	Ž	132	.30	.042	•	53	.60	30	.23		1.21	.01	.02	i	\$
BAR 88 L1+50S 0+50W	1	17	10	37	.1	9	6	537	3.80	7	5	RD	İ	24	1	2	2	148	.42	. 039		26	.27	29	.40	2	.92	. 02	.02	1	25
BAR 88 L1+505 0+00W	-	134	11	60	.2	31	11	351		11	5	ND	2	23	1	2	2	127		,045	5		1.15	38	.22	_	3.69	.01	.02	1	66
BAR 88 L2+005 2+009	1	32	9	62	.1	14	. 8		4.96	3	5	ND	1	29	1	2	2	151		.026	5	37	.39	28	.23		2.04	.01	.01	1	3
BAR 88 L2+005 L+75W BAR 88 L2+005 1+50W	•	145 164	10 12	17 15	.1 .1	36 29	15 17	320 327		20 18	5	RD XTD	I 1	22 25	1	2	2 2	169 122	-	.019	5 6	51 56	1.19	45 37	.30 .21		4.92 4.05	.01 .01	.03 .02	1 2	13 18
														•••	•											-				·	
BAR 88 LZ+00S 1+25W	I 17	67 57	9 36	132	.2 7.1	11 68	10	294 1051		10 40	5 16	ND 7	1 37	33 47	I 17	2 19	21	77 57		.057 .091	7 38	23 55	.30 .91	10 176	.25 .07		2.21	.01 .06	.0I .14	2 11	3 51
STD C/AU-S	17	31	78	194	1.1	0.0	13	1651	1.02	14	T d	,	31	1/	17	7.3	41	31	.34	.071	10	13	. 71	170	. 41	14	4.77	. 40	. 14	11	11

SAMPLE!	Mo PPM	Cu PPM	PE PPN	Za PPX	Ag PPM	Xi RPN	CO PPM	Kn PPN	Fe 1	As PPN	U PPN	JE X99	Th PPM	ST PPN	Cd PPX	SD PPN	Bi PPK	V PPN	Ca Ł	P E	La PPM	Cr PPH	Ng L	Ba PPN	71 1	B 228	Al 2	Fa t	1	V PPM	ÀG† PPB
																			•	•	• • • •	••••	•	••••	•		•	•	•		LIB
BAR B8 12+005 1+00W	1	53	8	49	.1	18	8	256	5.18	71	5	MD	1	24	1	3	2	144	.32	.075	- (	50	.61	15	. 28	2	2.37	.01	.04	1	9
BAR 88 LZ+00\$ 0475W	1	109	13	78	.1	31	13	336	6.10	31	5	MB	1	24	İ	1	2	151	.32	.116	3	64	. 95	27	.15		5.15	.01	.04	i	15
BAR 88 L2+DOS D+SOV	1	142	15	72	, 1	36	16	342	5.20	30	5	m	1	22	1	3	2	137	.22	.036	5	84	1.00	27	.21		5.51	.01	.03	5	13
BAR 88 12+00\$ 0+25W	1	92	9	58	.1	27	11	256	5.31	24	5	ND	1	20	1	2	2	141	.24	.033	4	71	.55	22	. 25		€.15	.01	.03	3	18
BAR 88 L2+00S 0+00W	1	32	5	42	.1	13	6	242	4.55	13	5	MD.	1	32	1	2	2	189	.58	.020	3	35	.36	27	.11		1.22	.02	.02	2	125
BAR 88 L2+50S 2+00W	ī	106	10	54	.1	32	13	285	1.95	24	5	ND	1	24	1	2	2	130	. 26	.019	4	62	1.14	31	. 15	3	1.51	.01	.03	3	,
BAR 88 L2+50S 1+75W	1	18	7	28	.1	10	6	205	3.25	8	5	RD	I	20	1	2	2	134	.31	.020	3	25	.27	12	.40	2	.17	.01	. 63	1	3
BAR 88 L2+50S 1+50W	1	58	10	51	.1	16	7	261	5.28	10	5	MD	1	19	1	2	2	161	.31	.037	•	53	.18	16	. 22	1	2.56	. 61	.63	2	5
BAR 88 L2+505 1+25W	1	26	6	31	. 2	8	- 4	145	3.69	8	5	XTD:	1	20	1	2	2	120	.26	.025	- (	31	.27	12	.15		1.49	.01	. 43	1	27
BAR 88 L2+50S 1+00W	1	51	6	53	.1	14	é	220	4.38	11	5	ND	1	25	1	2	2	126	.42	.049	4	38	. 50	16	.20	2	1.##	.03	.02	1	5
BAR 86 L2+50S 0+75W	1	111	11	59	.1	32	13		5.20	25	5	ND	ī	20	1	2	2	139	.25	.062	3	73	1.17	22	.30	3	5.19	.01	.01	3	10
BAR 88 L2+50S 0+50W	1	100	11	67	.1	27	11	422	5.01	25	5	MD	1	21	1	2	2	130	.27	.084	- 1	67	.96	20	. 21	2	4.04	.01	.04	2	17
BAR 88 L2+50S 0+25W	1	117	6	63	.1	25	11	297	6.61	21	5	ND.	1	20	1	2	2	159	.24	.082	1	73	1.01	19	. 23	2	4.75	.01	.04	2	12
BAR 88 L2+50S 0+00W	1	156	5	77	. 2	35	25		5.29	28	5	ND	2	29	1	3	2	144	.31	.054	5	68	1.10	25	.26	2	4.66	.01	.05	3	51
BAR 88 L3+00S 2+03W	1	81	7	45	. 1	18	7	205	4.87	16	5	ND	1	28	Ī	2	2	149	.41	.032	- 1	58	.65	15	, 30	2	2.54	.02	.03	2	23
BAR 88 L3+00S 1+75¥	I	101	10	55	.1	21	8		5.70	18	5	MD	1	20	1	2	2	155		.050	3	79	. £4	20	.31	2	1.33	.01	.03	2	32
BAR 88 L3+005 1+50W	1	84	9	34	.1	13	6		5.15	9	5	ND	1	22	1	2	3	153		.027	4	52	.38	12	.33		2.35	. 02	.04	1	50
BAR 88 L3+0GS 1+25W	i	45	9	36	.1	14	6		4.17	14	5	KD	2	22	1	2	2	128		.024	•	47	.38	19	.24		2.36	.01	.03	2	23
BAR 88 L3+005 1+00W	1	59	10	50	.1	16	7		5.52	20	5	ND	l	20	İ	2	2	144		.042	- 6	64	.60	16	.11		€.21	.01	.02	- (	16
BAR 88 L2+COS 0+75W	j	30	3	33	. 1	10	5	157	3.09	2	5	ΝĐ	2	19	1	2	1	191	. 25	.024	1	2.8	. 48	12	.16	2	1.57	.01	. 05	1	5
BAR 88 L3+005 0+50W	1	74	9	64	.1	20	10		4.59	23	5	KD	1	22	1	2	2	115	.27	.056	3	51	.80	24	.22		3.50	.01	. 52	1	7
8AR 88 L3+00S 0+25W	1	49	7	59	.2	14	9	266		12	5	ИD	1	35	1	2	2	154		.039	3	41	. 39	32	. 29		2.30	.01	.02	3	28
BAR 88 53+005 0+00W	1	120	7	75	٠1	27	17		4.20	15	5	ND	1	33	1	2	2	117		.046	11	51	.76	39	.19	_	3.11	.01	.04	1	13
STD C/AU-S	18	57	41	132	7.1	68	28	1031	4.02	44	20	7	37	47	17	16	21	57	.49	.090	38	55	.91	172	.06	33	2.01	.06	.14	12	19

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SAMPLES	Mo	Cu	Pb	Zn	Ag	<b>#1</b>	Co	Mn							Cd									81	۲í	В	11	lit	1	¥	Aq#
	PPK	PPK	PPK	PPM	PPX	PPM	PPM	PPN	ŧ	2 P.X	25%	PPK	PPX	PPM	PPM	PPK	PPM	PPM	1	ł	PPM	PPH	1	PPM	1	PPW	*	ŧ	1	PPR	P P B
BAR 88 L1+005 1+50W F BAR 88 L1+005 0+00W F									4.86 5.81																					1 2	1 18
BAR 88 LI+50S 1+75W P BAR 88 LI+50S C+25W P BAR 89 VL-001	1	142	5	87	.1	49	23	706		16	5	ND	2	30	1	2	2	147	1.05	.040	4	73	2.09	33	.34	5	2.75 3.21 3.06	.03	.06	t	2
BAR 38 VL-002 P	1								5.42														•			•				1	1
BAR 88 VL-003 P BAR 88 VL-005 P	1	139 153 145	7	100	.3	48	24	890	5.81 5.82 5.91	20	5	KD	2	31	1	2	2	139	.96	.046	5	71	1.92	35	, 26	7	3.08 3.23 3.26	.03	.08	1 2 1	19 4 6

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# APPENDIX B

ANALYTICAL TECHNIQUES

#### ANALYTICAL TECHNIQUES

The analysis was performed by Acme Analytical Laboratories Ltd. of Vancouver, B.C. The rocks were crushed to -3/6" for up to 101 lbs and then 1/2 lb was pulverized to -100 mesh. Soils and silts are dried at 60 degrees celsius and 30 grams are sieved to -80 mesh. The methods are described below.

#### ICP (30 elements)

A .50 gram sample is digested with 3 mls 3-2-1 HCL-HNO-H 0 at 95 degrees celsius for one hour and is diluted to 10 ml with water. This leach is near total for base metals, partial for rock forming elements and very slight for refractory elements.

#### Gold - Soil and Silt, Rock

A 10.0 gram sample is ignited at 600 degrees celsius, digested with hot aqua regia, extracted by MIBK and analysed by graphite furnace AA.

# APPENDIX C

STATISTICAL HISTOGRAMS

