

ASSESSMENT REPORT ON GEOLOGICAL MAPPING, AND ROCK, SOIL, & SILT SAMPLING 9|88 of the LAZY GROUP

(Lazy K 1-4, Beach, and Creek Claims)

Alberni Mining Division, British Columbia Latitude 49°24'N, Longitude 125°54'W NTS 92F/5 53'

for Owner(s): CONSORT ENERGY CORP., Gregory Kiner September 3, 1987 T. Neale, B.Sc. Operator: Consort Energy Corp. for

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# GEOLOGICAL BRANCH ASSESSMENT REPORT





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#### SUMMARY

Phase I exploration of the Lazy Group of claims, including prospecting, geological mapping and rock, soil, and silt sampling was carried out in June and August 1987.

Mapping indicates the property to be mainly underlain by mafic to intermediate volcanics of uncertain age with lesser Sicker Group(?) cherty sediments, limestone, and basalt in the southwest corner. These rocks are intruded by Jurassic Island Intrusions(?) granodiorite and by a body of Tertiary(?) diorite.

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A new gold-mineralized zone was discovered on the property, south of Cotter Creek. It has been traced for 150 m along H18 Creek and returned values of up to 2000 ppb Au (check assay - 2.02 g/t Au). Values of up to 8413 ppm Cu; 5661 ppm Pb; 4224 ppm Zn; and 7.2 ppm Ag were also obtained from the zone. The zone consists of narrow quartz  $\pm$  carbonate veins cutting altered mafic to intermediate volcanics and associated feldspar porphyry dykes. The highest gold value came from a grab sample of a 2 m wide altered zone. Gold mineralization was also located in H22 Creek, 150 m to the west.

The geological setting of the newly discovered Au zone is very similar to that of the old Abco Mine, about 1 km to the north, across Cotter Creek valley.

A zone of weakly anomalous Au soil geochemistry was located downslope from the old Abco Mine and could be an indication of additional mineralized zone(s) north of Cotter Creek.



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A very strong air photo lineament occurring in H18 Creek near the new gold zone strikes directly towards the old Big Boy Au-Ag mine, 3 km to the northwest. No exploration has yet been carried out on this highly prospective structure.

A Phase II followup program consisting of geochemical and geophysical grid exploration as well as detailed geological mapping and sampling of the new gold zone, and reconnaissance exploration of other parts of the property is recommended at an estimated cost of \$71,400. Contingent upon favourable Phase II results, Phase III IP surveying and diamond drilling is recommended at an estimated cost of \$175,000.



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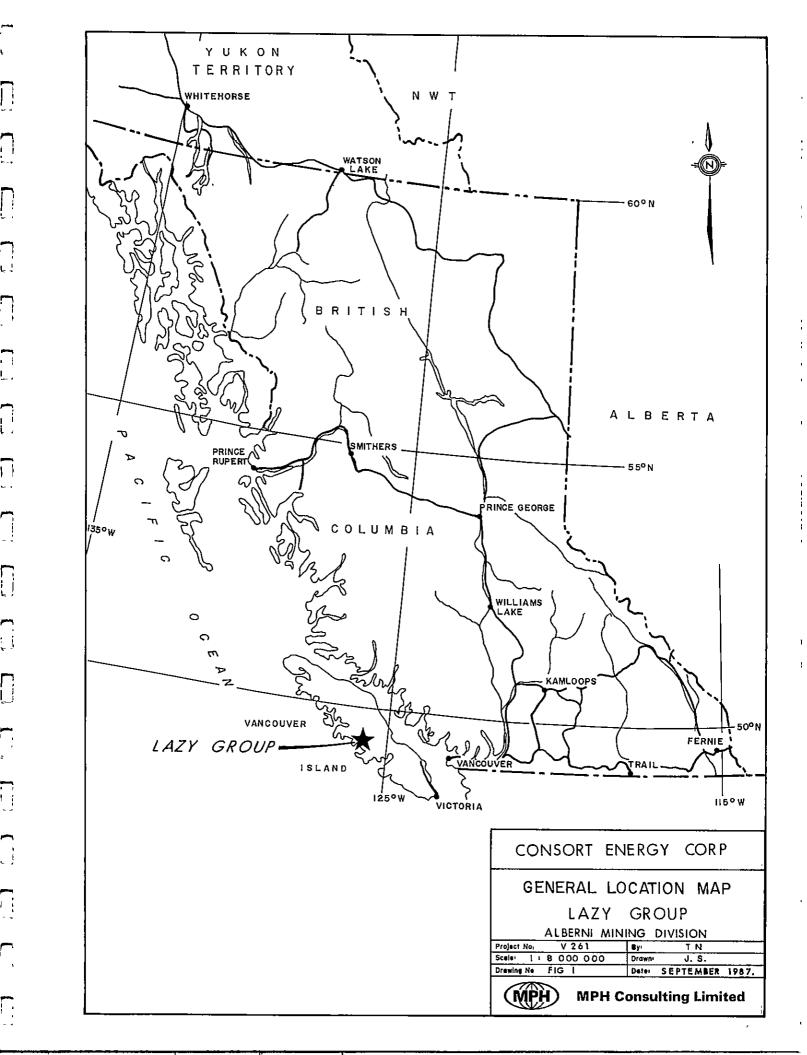
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#### 1.0 INTRODUCTION

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This report represents the compilation of results of exploration work carried out by MPH Consulting Limited on the Lazy Group of claims from May 31 to June 6 and August 1-14, 1987. The work was performed at the request of Mr. Harry Bygdnes, Consort Energy Corp.

first property visit fulfilled 1987 assessment work The requirements for the Lazy Group. A total of 28 rock samples and 39 silt samples was collected and subsequently analyzed for Au and by 30-element ICP. The second property visit was designed to extend the coverage by establishing a small soil sampling grid, additional rock and silt sampling, and geological mapping of the A total of 131 rock samples, 37 soil samples, and 4 silt claims. samples was collected. Extremely thick undergrowth and a period of poor weather prevented the completion of all the planned exploration work.

Included in the report is a description of regional geology, nearby mineral occurrences, and a recommended work program to follow up the results of the 1987 exploration.

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#### 2.0 PROPERTY LOCATION, ACCESS, TITLE

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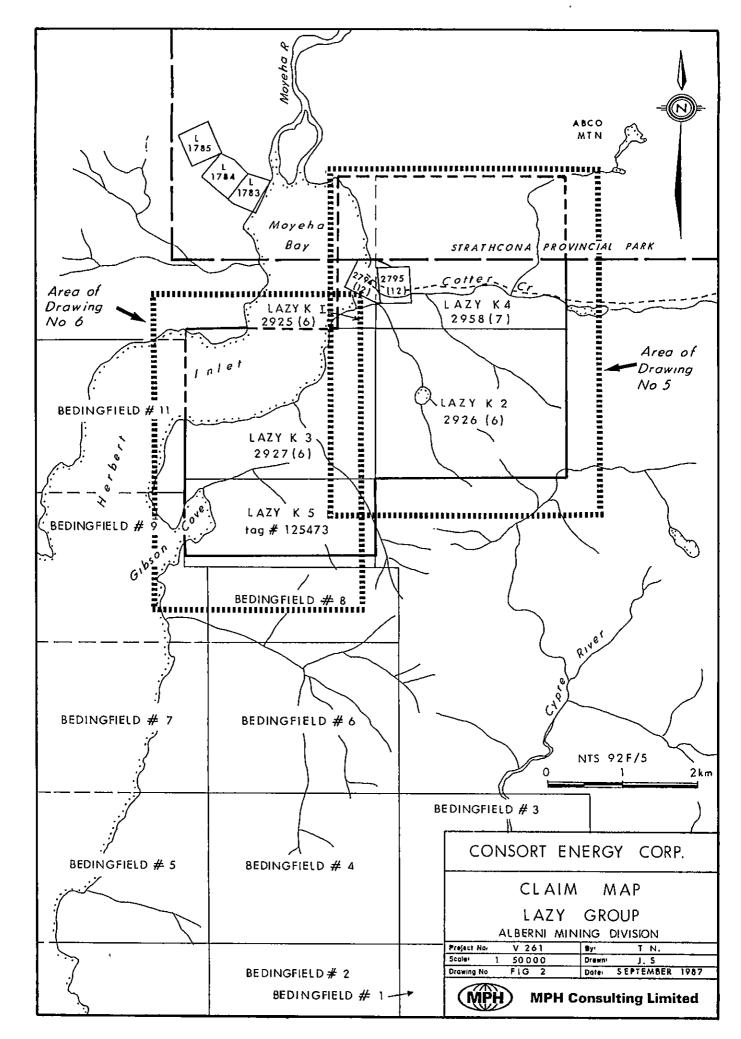
The Consort Energy Corp. Lazy Group property is located 28 km north of Tofino on the eastern side of Herbert Inlet, immediately south of Strathcona Provincial Park, on NTS mapsheet 92F/5. It is centred at about 49°24'N latitude, 125°54'W longitude in the Alberni Mining Division of British Columbia (Figures 1, 2).

Access to the property is by water or air. No docking facilities exist on the property. Landing locations for helicopter access exist at only a few locations along the shoreline and on the top of the ridge (±1000 m elevation). Thick forest and brush prevent helicopter access to all other parts of the property. A system of old roads on the north and south sides of Cotter Creek is so overgrown that it is difficult to even walk along them.

The Lazy Group consists of 6 claims totalling 66 units as summarized below (Figure 2):

Claim	Record No.	Units	Anniversary Date	Year Recorded
Lazy K l	2925(6)	4	June 5, 1988	1986
Lazy K 2	2926(6)	20	June 5, 1988	1986
Lazy K 3	2927(6)	20	June 5, 1988	1986
Lazy K 4	2958(7)	20	July 7, 1988	1986
Beach	2794(12)	1	Dec. 23, 1988	1985
Creek	2795(12)	1	Dec. 23, 1988	1985

The claims were grouped as the Lazy Group by Notice to Group dated June 5, 1987 and all are owned by Consort Energy Corp.



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The Legal Corner Post of the Lazy K 1-4 claims was located and found to be 700 m north of its position as stated on the claim staking affidavit. The corrected location of the claims is shown on Figure 2. The Lazy K 1 and Lazy K 4 claims extend about 1.1 km into Strathcona Provincial Park. The portions of the claims which overlap the park are not valid and should therefore be dropped by reducing the Lazy K 1 to 2 units north by 1 unit west and the Lazy K 4 to 2 units north by 5 units east.

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An additional claim, the Lazy K 5 claim, consisting of 10 units was staked contiguous to the south of the Lazy Group on August 12, 1987 to cover open ground on which a copper-silver mineralized boulder was located during June exploration (sample 20973).



#### 3.0 HISTORY

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The occurrence of gold in the area of the Lazy Group was first discovered in 1933, near the mouth of the Moyeha River. The discovery of placer gold in Cotter Creek shortly afterwards led discoverv to the of two auriferous shear zones on the mountainside to the north. From 1934 to 1942 various companies explored and worked the showings, known as the Abco Mine, with several adits, drifts, and raises. A tramline to carry ore and supplies up and down the mountainside from Cotter Creek to the 740 m level was constructed prior to 1935. Total production in 1935, 1937, and 1938 is recorded as 72.6 tonnes yielding 7216 g Au, 3204 g Ag, and 265 kg Cu (99.4 g/t Au, 44.1 g/t Ag, 0.37% Cu). A shipment of 807 kg of ore in 1942 returned 50.7 g/t Au, 24.0 g/t Ag, nil Cu, 0.3% Pb, 0.4% Zn. In 1942 the property was allowed to lapse. It was restaked in 1944, however, very little work was done until the period from 1959 to 1962 when Berton Gold Mines Ltd. constructed docking facilities on Herbert Inlet, built a road to the bottom of the tramline, drove a new 279 m long adit at the 300 m elevation level, and carried out 290 m of diamond drilling at the face of the new adit. No work on the showings has been carried out since 1962. The showings are now within the boundaries of Strathcona Provincial Park.

The ground covered by the Lazy Group claims has been explored from 1984 to 1987 by Consort Energy Corp. In 1984, 16 silt samples and 50 soil samples were collected from the Lazeo-Klein claim. A strong Au silt anomaly was located on a creek draining the south side of the Cotter Creek valley and weak Au soil geochemical anomalies along with a weak and a strong Au silt anomaly were located on the north side of Cotter Creek.



In 1985 rock, soil, and silt sampling was carried out on the Herb 1, 2, and 6 and Lazeo-Klein claims. Rock sampling indicated that the property is mainly underlain by Karmutsen Formation rocks, with lesser Sicker Group rocks present in the Gibson Cove area. The highest result was 31 ppb Au, and 31 of 37 rock samples returned less than 10 ppb Au. Soil and silt sampling located some weakly to strongly anomalous Au values north of Cotter Creek.

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The Herb and Lazeo-Klein claims lapsed, and the Lazy K 1-4 claims were staked in 1986.



#### 4.0 REGIONAL GEOLOGY

The west coast of Vancouver Island in the vicinity of Herbert Inlet, is underlain primarily by metavolcanic and lesser metasedimentary rocks of the Westcoast Complex along the coastal areas, with extensive exposures of Triassic Karmutsen Formation lesser Paleozoic Sicker Group rocks, rocks and intruded by Jurassic Island Intrusions rocks inland (Figure 3). The following description of regional geology is based mainly on mapping by Muller, et al (1981) in the Nootka Sound area and by Muller (1977) in the Herbert Inlet area.

#### 4.1 Sicker Group

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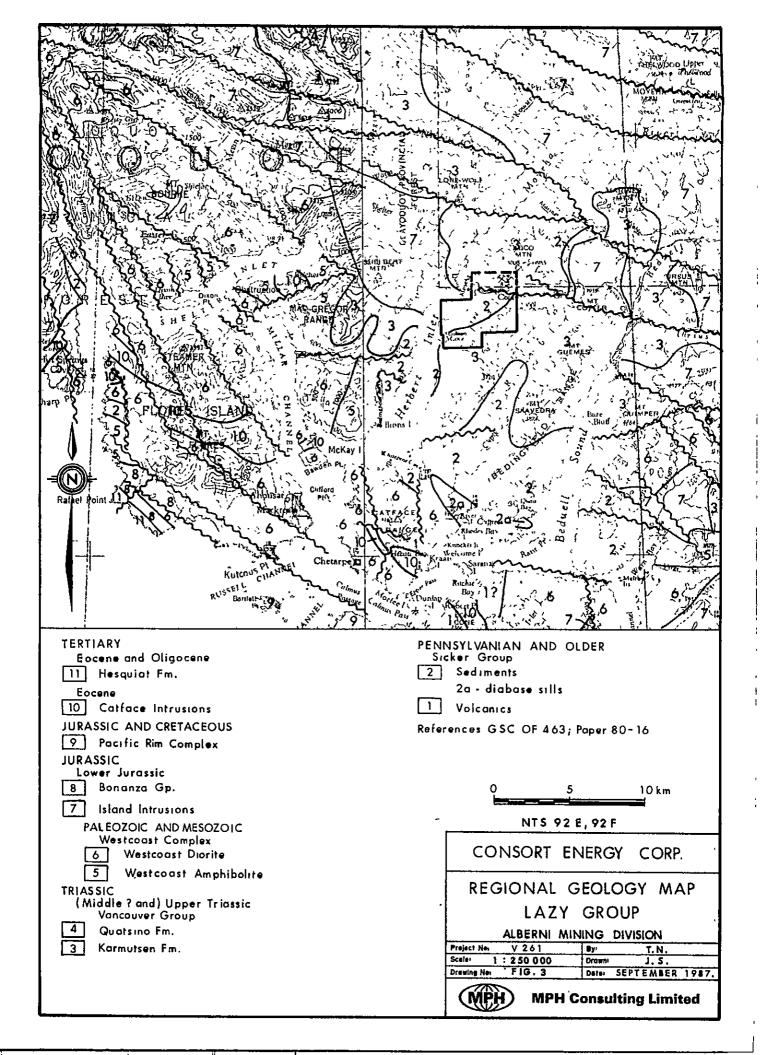
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Muller (1980) proposed the following subdivision of the Sicker Group, from oldest to youngest: Nitinat Formation, Myra Formation, Sediment-Sill Unit, and Buttle Lake Formation.

In the Nootka Sound map area, the Sicker Group is represented by metamorphosed clastic sediments (Unit 2) in roof pendants and along the Muchalat Batholith. It is difficult to determine the total thickness of the Sicker Group here because of intrusive contacts, but it is estimated to be between 300 and 600 m (Muller, et al, 1981). They are generally in intrusive contact with granitoid rock and commonly interleaved with metabasaltic rocks. These metabasalts are perhaps sills that were emplaced later, possibly in conjunction with the eruption of Karmutsen Formation lavas.



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The sills in the roof pendant areas of Muchalat Batholith are massive greenish black, fine to medium grained amphibolite. Thin sections commonly show relict diabasic texture.

In Late Triassic time, the sediments were intruded by diabase sills comagmatic with Karmutsen Formation volcanics, and minor thermal metamorphism occurred.

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The Sicker Group in the Herbert Inlet area has been mapped by Muller (1977) mainly as a greywacke-argillite sequence (Unit 2). Included within this unit are minor amounts of limestone. Unit consists of diabasic sills intruding the Sicker Group 2a sedimentary rocks; these sills are not mapped separately in the Small amounts of Unit 1 Sicker Group Nootka Sound map area. volcanic rocks, ranging from basaltic to rhyolitic fine-grained banded tuffs to breccias to agglomeratic flows are mapped by Muller (1977) in the Herbert Inlet area. Similar rocks, if they occur in the Nootka Sound map area, were probably included with "amphibolitic" Westcoast Complex rocks (Unit 5).

The Nitinat Formation consists predominantly of mafic volcanic rocks, most commonly flow-breccias or agglomerates including some massive flows, and rare pillow basalts. It is not mapped within the Herbert Inlet or Nootka Sound areas, but may be included in Unit 1 and/or Unit 5.

The Myra Formation overlies the Nitinat Formation, possibly with minor unconformity. In the Port Alberni area the Myra Formation is made up of a lower massive to widely banded basaltic tuff and breccia unit, a middle thinly banded albite-trachyte tuff and argillite unit, and an upper thick bedded, medium-grained albitetrachyte tuff and breccia unit.



The type locality of the Myra Formation is Myra Creek, at the south end of Buttle Lake, about 25 km northeast of the Lazy Group. Volcaniclastic rocks consisting dominantly of rhyodacitic rhyolitic tuff, lapilli tuff, breccia, or and some quartz porphyry and minor mafic flows and argillite (Upper Myra Formation) are host to Westmin Resources Ltd.'s Myra, Lynx, Price, and H-W massive sulphide (Cu-Zn-Pb-Au-Ag-Cd) deposits. The Myra Formation is not mapped within the Herbert Inlet or Nootka Sound areas but may be included in Units 1, 2, and/or 5.

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The Sediment-Sill Unit is transitional between the Myra and Buttle Lake Formations. The upper and lower contacts are poorly Thin bedded, turbidite-like, much silicified or cherty defined. massive argillite and siltstone are interlayered with diabasic sills. The sediments show conspicuous dark and light banding on joint surfaces. The sills consists of a fine-grained, greenish black matrix containing feldspar phenocrysts up to more than 1 cm, commonly clustered in rosettes up to few centimetres in diameter, producing a very distinctive "flower porphyry" appearance. Subophitic texture may in hand also be visible specimen. The sediments are dated as Mississippian in age whereas the sills are believed to represent feeders to Triassic Karmutsen volcanics. The Sediment-Sill Unit is not mapped within the Herbert Inlet or Nootka Sound areas, but is probably included in Unit 2 and may also be included in Unit 5. The sills are shown as Unit 2a in the Herbert Inlet area.

The Buttle Lake Formation consists of a basal green and maroon tuff and/or breccia overlain by coarse-grained crinoidal and calcarenitic limestone, fine-grained limestone with chert nodules and some dolomitic limestone. Lesser amounts of argillite, siltstone, greywacke, or chert may also be present. The Buttle Lake Formation is up to 466 m thick and, on the basis of fossil dating, appears to be Middle Pennsylvanian, but may be as young as Early Permian (Muller, 1980). It is not mapped within the Herbert Inlet or Nootka Sound areas, but may be included in Unit 2.

#### 4.2 Vancouver Group

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The Karmutsen Formation (Unit 3) volcanic rocks unconformably to paraconformably overlie the Buttle Lake Formation limestone to form the base of the Vancouver Group. They are the thickest and most widespread rocks Vancouver on Island. The formation consists mainly of dark grey to black, or dark green, tholeiitic pillow basalt, massive basalt, and pillow breccia. Flows are commonly aphanitic, feldspar porphyritic, and amyqdaloidal. Pillow lavas generally occur toward the base of the section.

Karmutsen Formation rocks are generally relatively undeformed compared to Sicker Group rocks and are dated Upper Triassic and older. Extensive exposures of Karmutsen rocks, as roof pendants in the Jurassic Muchalat Batholith occur north of the head of Herbert Inlet.

The Upper Triassic sediments (mainly limestone) of the Quatsino Formation (Unit 4) are found overlying Karmutsen Formation volcanics south of the head of Muchalat Inlet. Most of the economic skarn deposits on Vancouver Island are hosted by Quatsino Formation limestone.



#### 4.3 Westcoast Complex

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The Westcoast Complex (Units 5, 6) comprises a variety of metamorphic basic crystalline rocks plutonic and including quartz diorite with amphibolite, diorite, anđ homogeneous, agmatitic gneissic or textures. Metamorphosed Karmutsen Formation and/or Sicker Group rocks grade locally into the complex and are believed to be its protolith, having undergone migmatization in Early Jurassic time. The mobilized granitoid portion of the complex is believed to be the source of the Island Intrusions and, indirectly, the Bonanza Group volcanics (Muller, 1981, 1982). Small bodies of recrystallized limestone found within the complex are believed to be derived mainly from the Quatsino Formation, and to a lesser extent from the Buttle Lake Formation.

Isachsen (1984) reinterpreted the Westcoast Complex as a mixture of Jurassic intrusives and metamorphosed Karmutsen/Sicker rocks. The intrusive component of the Complex (Westcoast Diorite - Unit 6) varies in composition from trondjhemite to gabbro and is believed to be derived from the mantle rather than Paleozoic/ Mesozoic rocks. Consistent U-Pb isotopic dates of 176-189 Ma have been obtained. The Westcoast Diorite intruded the preexisting Sicker and Karmutsen rocks, which were contemporaneously metamorphosed into the Westcoast Amphibolite (Unit 5).

The Westcoast Amphibolite is locally intimately mixed with Westcoast Diorite, producing Westcoast Migmatite. The Island Intrusions and Bonanza Group are considered to be higher level comagmatic differentiates of the Westcoast Diorite.



In the map area, the Westcoast Complex extends from Sydney Inlet southeastward across Flores Island and across the mouth of Bedwell Sound. The amphibolite unit (Unit 5) consists of foliated metavolcanic rocks (flows, basaltic dykes, and sills) and metasediments (bedded to massive partly silicified carbonates and pelites). These low grade amphibolites exhibit local generally northwest trending, isoclinal folding (Muller, et al, 1981).

#### 4.4 Island Intrusions .

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Island Intrusions (Unit 7) make up batholithic granodioritic and granitic rocks along with migmatitic quartz diorites and tonalites of the Westcoast Complex, that comprise about 50% of exposed rocks in the Nootka Sound map area (Muller, et al, 1981). Island Intrusions are widely exposed in the area to the north of Herbert Inlet. These intrusions have been assigned a Middle to Upper Jurassic age.

#### 4.5 Bonanza Group

The Bonanza Group (Unit 8) stratigraphy varies considerably in a horizontal and lateral sense, as it represents parts of several different eruptive centres volcanic of а arc. Basaltic, rhyolitic, and lesser andesitic and dacitic lava, tuff, and breccia with intercalated beds and sequences of marine argillite and greywacke make up the Bonanza Group. The Bonanza Group



volcanics are considered to be early extrusive equivalents of the Island Intrusions and therefore of Early Jurassic age. Bonanza Group volcanics occur on the southwest corner of Flores Island.

#### 4.6 Pacific Rim Complex

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Rocks of the Jurassic and Cretaceous Pacific Rim Complex (Unit 9) occur on Vargas and Bartlett Islands. They include argillite to greywacke, ribbon chert, and pillow lavas and are believed to be of subduction zone origin, similar to the Franciscan Melange of California (Muller, et al, 1981).

#### 4.7 Catface Intrusions

Early Tertiary intrusive stocks (Unit 10) composed mainly of quartz diorite are common on Vancouver Island. In the Nootka Sound map area they are generally southwest trending, cutting Jurassic and older rocks. K-Ar dating is almost essential to differentiate between certain intrusives as lithologies are similar. On Flores Island, the Tertiary intrusives form a 1.5 km wide belt through the middle of the island (Muller, et al, 1981), intruding the Westcoast Complex. South of Herbert Inlet, the Catface copper deposit is closely associated with Tertiary intrusive rocks.



#### 4.8 Hesquiat Formation

The Tertiary Hesquiat Formation (Unit 11), striking northwesterly with a shallow southwest dip, underlies part of the southwest coast of Flores Island. Sequences of clastic rocks are composed of either mainly shale, or of alternating shale and sandstone/ conglomerate units.

#### 4.9 Structure

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The most widespread structural feature in the area is block faulting. Sicker Group rocks below the Buttle lake limestone have been deformed into asymmetric, locally isoclinal shear folds. Mesozoic and Cenozoic rocks show only local syndepositional folding, except for the Pacific Rim Complex, which is intensely deformed.

Along the coast, northwesterly and lesser northeasterly faults predominate. The major fault is the Westcoast Fault, which separates Westcoast Complex rocks from the underthrust Pacific Rim Complex rocks. Further inland north and west-northwest to west to west-southwest trending faults occur. The westerly set of faults may be related to cooling of the large Jurassic Island Intrusions batholiths while the northerly faults predate the Island Intrusions rocks. All faults are steeply dipping and are usually poorly exposed. Sense of the faults is generally not known due to the lack of marker units.



#### 4.10 Economic Setting

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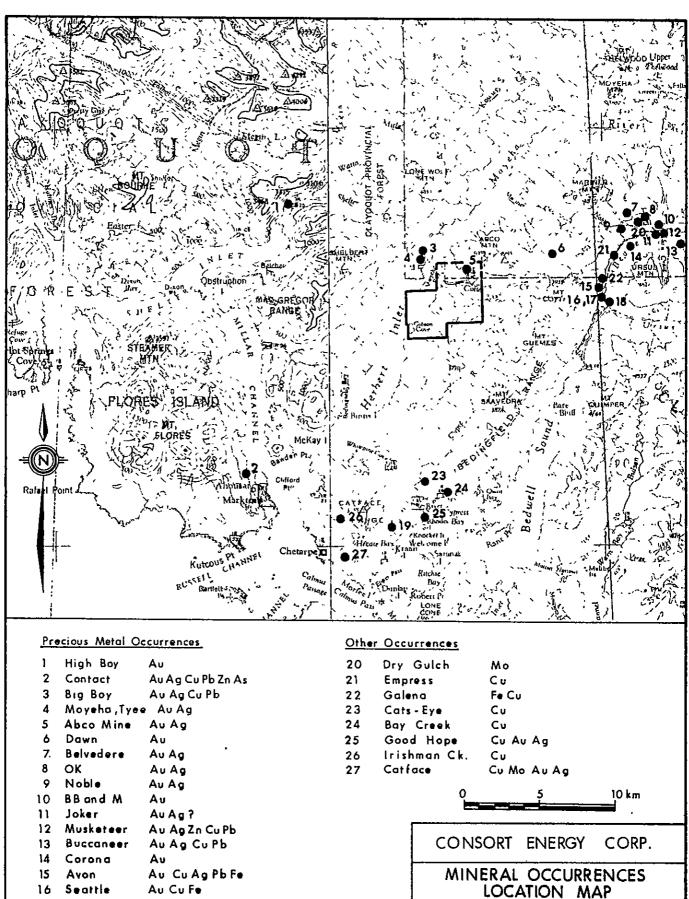
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The Lazy Group is partially underlain by rocks of the Sicker Group, which elsewhere on Vancouver Island host volcanogenic massive sulphide mineralization. Examples include Westmin Resources Ltd.'s Buttle Lake Mines with reserves of 14.7 million tonnes grading 2.1% Cu, 0.3% Pb, 5.4% Zn, 2.4 g/t Au, and 41 g/t Ag (Walker, 1983); and the Abermin Corp. Lara deposit near Duncan with reserves of 837,000 tonnes grading 0.62% Cu, 0.81% Pb, 3.59% Zn, 3.26 g/t Au, and 89.5 g/t Ag (1987). Mineral occurrences in the area of the Lazy Group are shown on Figure 4 and described below.

A number of gold occurrences, two of which are past producers, occur in the immediate vicinity of the property. At the Abco Mine (5) 7 showings consisting of quartz and quartz-calcite veins containing pyrite and chalcopyrite with traces of galena and sphalerite occur in shear zones cutting volcanics variously described as andesite (MMAR 1935) or dacite (Bancroft, 1937). The strike of the shears is variable, but mainly from northerly northeasterly and dips are generally to gentle. Feldspar porphyry dykes are commonly present near or at the showings. The wallrocks are at least locally carbonatized and pyritic.

Assays of up to 448.8 g/t Au, 212.6 g/t Ag are reported from the Mary McQuilton showing. A 1935 description\_of the showing states that two parallel quartz veins 60 cm apart occur along the hanging wall of a 3.7 m wide shear zone oriented 045/50-60NW. The veins are 15 to 45 cm wide and are separated by shattered, mineralized andesite. The zone was exposed for at least 27 m (MMAR, 1935). A 1937 report states that the showing consists of three lenticular quartz-calcite veins up to 15 cm wide in massive dacite (Bancroft, 1937).



- 17 Brooklyn Au Pb
- Prosper 18
- Au AgCuPb 19 Cyprus Au Cu Mo
- NTS 92E,92F

**MPH Consulting Limited** 

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The other main showing is the Gibson, which is described in MMAR (1935) as a well-defined quartz stringer up to nearly 30 cm wide and several smaller quartz stringers below it, cutting dense andesite in a shear zone oriented 120/14NE. The quartz contains minor pyrite, galena, and chalcopyrite. The shear zone was exposed for 9 m by 1.2 to 1.5 m and yielded assays of up to 49.4 g/t Au. Free gold was reported to be visible in the andesite. Bancroft (1937) described the Gibson showing as three zones of quartz-calcite veinlets up to 20-25 cm wide within a 4.6 m zone of carbonatized, locally epidotized, dacite.

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Total recorded production from the Abco Mine in 1935, 1937, and 1938 is 72.6 tonnes grading 99.4 g/t Au and 44.1 g/t Ag with minor (less than 1%) Cu, Pb, and Zn values.

The second ex-producer near the Lazy Group is the Big Boy (3). Geologically similar to the Abco Mine, the Big Boy mine produced 54.4 tonnes of ore grading 93.1 g/t Au, 54.3 g/t Ag, 0.39% Cu, 0.37% Pb from a shear zone trending 115/20SW. The Moyeha (4), Tyee (4), and Dawn (6) showings are also geologically similar, with Au-Ag-bearing sulphide mineralized quartz veins in shear zones cutting volcanics and quartz porphyry dykes. The Herbert Inlet area showings occur in a geological setting similar to that of the Zeballos gold camp, 90 km to the northwest, where 651,797 tonnes of ore was produced between 1934 and 1948 at average grades of 14.5 g/t Au and 6.3 g/t Ag (Cooke, 1984).

Numerous showings occur near the head of Bedwell Sound, about 10 km east-southeast of the Lazy Group. At the Musketeer Mine (12) quartz veins in sheared fractures striking north to northeast to east and dipping steeply northwest in Karmutsen Formation



volcanics underlain by quartz diorite have produced 4536 tonnes of ore (milled; 9616 tonnes mined) in 1942, 1961-63, 1974, and 1975 yielding 94,926 g Au, 53,995 g Ag, 522 kg Cu, and 11,099 kg Reserves are reported as 5443 tonnes grading 69 g/t Au Pb. (unclassified) as of June 18, 1974. The neighbouring Buccaneer Mine (13) produced 5897 tonnes of ore grading 20.6 g/t Au, 6.6 g/t Ag, minor Pb, Cu in 1941, 1942, 1947, 1958, and 1959. Two branching quartz veins in or near altered andesite dykes in the Jurassic Bedwell Batholith contain disseminated gold-bearing sulphides. Most of the other occurrences in the Bedwell Sound area are also quartz vein showings. The Seattle (16), Prosper (18), and Galena (22) are skarn showings in Vancouver Group volcanics and/or limestone. The Prosper produced 81.6 tonnes of ore grading 81.5 g/t Au and 76.9 g/t Ag in 1942 and 1950.

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The Catface deposit (27), located about 20 km south of the Lazy Group is a porphyry Cu-Mo deposit hosted by a Tertiary quartz diorite intrusion and its Paleozoic and (?) Triassic country rocks. Reserves calculated in 1971 are 181,440,000 tonnes measured geological at a grade of 0.45% Cu.



#### 5.0 PHASE I EXPLORATION

Phase I exploration consisted of prospecting, rock sampling, silt sampling, soil sampling, and reconnaissance geological mapping. A total of 161 rock, 38 soil, and 43 silt samples was collected. Geological mapping at 1:10,000 scale (later plotted at 1:5000 scale) was carried out along the shoreline of Herbert Inlet, in the Cotter Creek area, and in the Gibson Cove area. Extremely thick undergrowth prevented more extensive coverage of the lower parts of the property. Helicopter-supported traverses in the upper parts of the property had to be cancelled due to low cloud cover.

### 5.1 Property Geology

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The area of the Lazy Group has been mapped by Muller (1977) as being underlain by Karmutsen Formation rocks in the north and southeastern areas, and by Sicker Group sediments in the western area (Figure 3).

Mapping carried out on the property in August located mainly basaltic volcanics with lesser cherty and limey sediments, dioritic to <u>diabasic</u> intrusives, and Island Intrusions(?) granodiorite (Drawing Nos. 5 and 6).

North of Cotter Creek, only volcanic rocks, locally cut by narrow (up to about 5 m) dykes were observed (Unit 1). The majority of the volcanics are fine-grained dark green massive basalts,



commonly extensively quartz, quartz-carbonate, quartz-epidote, or epidote stringered. Feldspar porphyritic varieties make up a significant proportion of the basalts in Abco and Mine Creeks. Locally, quartz and/or calcite amygdules were noted. One outcrop of basalt tuff with fragments to 2 mm was observed in Abco Creek. Interbedded(?) with the basalt are lesser amounts of intermediate volcanics including massive and tuffaceous andesitic and dacitic rocks. In Abco Creek an outcrop of possibly tuffaceous dacite was located, and in Mine Creek a lens-shaped body of fine-grained massive dacite occurs between layers of basalt at the base of a large waterfall at 250 m elevation.

The basaltic rocks are cut by relatively abundant feldspar porphyritic dacitic dykes, and in Mine Creek, by quartz-feldspar porphyritic felsite dykes.

The volcanics are almost ubiquitously carbonatized to some extent, often fairly strongly. Disseminated pyrite is widespread, especially in the more strongly carbonatized rocks and near quartz and quartz-carbonate veins. Hematization of quartz veined basalt was noted in occasional pieces of float in Abco Creek.

The only bedding measurement north of Cotter Creek indicates that the rocks strike east-west and dip approximately vertically.

Muller's (1977) mapping shows the rocks north of Cotter Creek as belonging to the Karmutsen Formation of the Vancouver Group. The presence of andesitic and dacitic volcanics tends to suggest that Sicker Group or Bonanza Group rocks may be present. Further detailed mapping as well as whole rock analysis and thin section study is necessary to determine which Group is present.



South of Cotter Creek in H22 and H18 Creeks are volcanics similar to those north of Cotter Creek. Here, the volcanics are mainly They occasionally contain feldspar phenocrysts, but basaltic. not as commonly as on the north side. Intermediate volcanics appear to be more infrequent here, but cherty basaltic layer(s) occur in H18 Creek. At 100 m elevation in H18 Creek layering of the massive-appearing basalt can be discerned by differing weathering characteristics of the layers, which vary from 0.3 to 3 m in thickness. The rocks south of Cotter Creek strike northsouth and dip steeply east. Dacitic dykes from 1 to 10 m wide The dykes tend to be approximately subparallel to are common. general trend of the host volcanics. Quartz, quartzthe carbonate, and quartz-epidote stringers, veinlets, and veins are common.

In the area of Ted's Creek fine-grained basalt, frequently extensively quartz, quartz-carbonate, or quartz-epidote veined, occurs. Locally, minor amounts of tuffaceous and/or more intermediate volcanic are also present, but the rocks are less variable than in the Cotter Creek area. The dacitic dykes typical of the Cotter Creek are noticeably absent here. On the ridge between Herbert Inlet and Gibson Cove an irregular body of medium-grained diabasic rock occurs (Unit 1a). It is slightly coarser-grained than the neighbouring basalts but is finergrained than the diorite north of H90 Creek. It is likely an intrusive rock (subvolcanic equivalent of the basalt?) but could also represent the interior of a thick basaltic flow (or flows).

In the Gibson Cove area fine-grained cherty sediments predominate (Unit 2). Significant amounts of basalt occur as major interbeds(?) within the sedimentary unit. Also included in the

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unit are lesser amounts of argillite, cherty basalt, limestone, and laminated cherty siltstone and limestone. The cherty sediments vary in color from light to dark grey to light whitish brown and from slightly silty or muddy chert to silica-rich siltstone, to locally, quartzite. The laminated rocks consist of thinly interbedded (1-5 cm) cherty rocks, limestone, and minor argillite. They commonly have "wavey" bedding surfaces with small folds(?) up to 10 cm high by 30 cm long and locally are folded on outcrop scale (eg. near sample 18276, a fold about 2 m high by 3 m wide occurs). An indication of even larger scale folding occurs in the Deep Point area, where bedding strikes north-northeast and dips east, west of the point and strikes northwest and dips southwest, east of the point. North of Gibson Cove strikes are about east-west and dips are northerly. In the Gibson Cove area, despite the local small scale folding, measured strikes are uniformly north-northeast and dips are all moderate easterly. Two mappable intervals of limestone (Unit 3) occur within the cherty sediment unit east of Gibson Cove. The limestone is white, medium-grained, and recrystallized. It has a very distinctive "hackly" weathering surface. Another considerable limestone outcrop occurs on Gibson Creek.

On the west shore of Herbert Inlet medium-grained granodiorite (Unit 4) intrudes fine- to medium-grained massive black basalt (Unit 1?). The granodiorite contains abundant angular basalt xenoliths to at least 1 m in size, while the basalt is cut by very abundant granodioritic veins to dykes. The granodiorite probably belongs to the Jurassic Island Intrusions. A small amount of granodiorite intrusive also outcrops on the east side of Herbert Inlet near Ted's Creek.



South of Cotter Creek a body of diorite to locally, quartz diorite, outcrops along the shore of Herbert Inlet (Unit 5). The diorite varies from quite fine-grained and very mafic-rich (absorbed basaltic xenoliths?) to medium- to somewhat coarsegrained. It generally contains very litt e sulphide mineralization. Locally, it contains abundant (30-40% very finegrained, roughly circular aggregates of magnetite up to 1 cm in diameter. This variety was observed mainly in float, but also in possible outcrop at one location (sample 18407). Along the shoreline felsic dykes up to 50 cm wide cutting the diorite are fairly common. This intrusive may belong to the Tertiary Catface Intrusions.

#### Structure

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Several very strong air photo lineaments occur on the Lazy Group. North-trending lineaments follow H3 and Mine Creeks, north of Cotter Creek; northwest trending lineaments follow H18 and H90 Creeks, south of Cotter Creek; and a northeast-trending lineament extends from Herbert Inlet to near Gibson Cove.

The Mine Creek lineament is associated with the Abco mine mineralized zones. The parallel H3 Creek lineament does not appear to have significant associated mineralization, however.

The H18 lineament is of particular interest as it strikes directly toward the Big Boy showing (see 4.10) at the head of Herbert Inlet, is of the same orientation as the Au-Aq mineralized shear zone at Big Boy, and anomalous Au values occur in rocks from the lower reaches of H18 Creek.



Local evidence of shearing in H90 Creek and the apparent end of the diorite intrusive at H90 Creek indicate that the H90 lineament may well represent a fault. It trends parallel to the H18 lineament although no anomalous sample results were returned from it.

The Gibson Cove lineament is expressed on the ridgetop between Gibson Cove and Herbert Inlet by a very pronounced flat-bottomed gully 8-10 m wide by 3-10 m deep cutting diabasic rocks. No direct evidence such as foliation or slickensides was observed, but it is assumed that the gully follows a fault. The lineament appears to separate an area of Unit 2 rocks with variable strike and dip to the north from an area with essentially uniform strike and dip to the south.

A major east-west trending fault has been mapped by Muller (1977) along Cotter Creek. No field evidence was observed on the Lazy Group for such a fault, however it has been geologically inferred on the basis of topography and the fact that the volcanics north of the creek appear to strike at right angles to those south of the creek.

#### 5.2 Rock Sampling

A total of 161 rock samples was collected from within or near the boundaries of the Lazy Group. The samples were analyzed for Au by AA at Rossbacher Lab and by 30-element ICP at Acme Analytical Labs. Sample locations and selected results are shown on Drawing Nos. 5 and 6. Sample descriptions and selected results are included in Appendix II while full analytical results are included in Appendix III.



The best results were returned from a previously unknown zone on H18 and H22 Creeks. Quartz-carbonate veins and carbonatized, pyritized mafic (to intermediate) Unit 1 wallrocks and associated feldspar porphyry dykes returned values of up to 2.02 g/t Au. Nine of the 15 rock samples collected from H18 Creek over a 150 m length of creekbed returned anomalous Au values. In addition, two samples collected from the adjacent (150 m west) H22 Creek contained anomalous Au levels. Results are summarized below:

#### H18 Creek

		Au										
	I	opb	g/t									
18310		140		74	ppm	As						
18311		90		48	ppm	As						
18312		30										
18313		650	0.82	51	ppm	As						
18317		560	0.69	842	ppm	Cu,	5661	Maa	Pb,	4224	mαα	Zn.
					ppm		109	ppm			E Less	,
18318		680	0.79	87	ppm			ppm				
18319	2	2000	2.02	286	ppm	-		66				
18321		70		8413	ppm		989	ppm	Zn.	7.2	ppm	Ασ.
					ppm			ppm			66	97
20961	(float) 1	.960				•		66				
					0							
				<b>n22</b>	Cree	ЭК						
18411		60										
18413		820	0.89	30	ppm	As,	48 r	a maa	b			

Sample 18317, is of a 3 cm wide galena-bearing quartz vein which can be traced for at least 5 m on the east side of the creek. Sample 18318 is of feldspar porphyritic dacite about 50 cm from 18317. The fact that the wallrock contains more gold than the vein is particularly interesting. Sample 18319, the southernmost sample collected from H18 Creek is also the most gold-enriched.



It was taken from a 2 m wide quartz-carbonate veined zone. The veins in the H18 Creek area generally trend either roughly northsouth or roughly east-west. The better mineralized veins are generally the east-west trending ones although some east-west veins are non-auriferous, while some north-south veins do contain Sample 20961, a strongly carbonatized basalt float boulder gold. was the initial indication of gold in H18 Creek. A different style of mineralization is represented by sample 18321, in which pods of epidote-quartz with magnetite-pyrite cores occur in porphyritic basalt, possibly a type of skarn alteration. This type of mineralization was not seen anywhere else on the property.

On the north side of Cotter Creek several samples of Unit 1 rocks returned anomalous Au results. In Abco Creek, sample 20963, a carbonatized, chloritized, epidotized basalt contained 80 ppb Au; while sample 18260, a 5 cm wide quartz vein in basalt contained 80 ppb Au and 72 ppm Pb. A float sample (18402) from H3 Creek contained 20 ppb Au. Anomalous copper values were obtained from four samples in this area. The most significant is 18278, which returned 8372 ppm Cu and 2.8 ppm Ag. It is a guartz-carbonate altered basalt from Mine Creek. Samples 18401 and 18402, both from the same very large float boulder west of Mine Creek contained 6209 and 12,514 ppm Cu, respectively. Sample 18406 contained 2786 ppm Cu and is a weakly carbonatized porphyritic basalt from H3 Creek. Very high boron analyses were returned from samples 18403 (31,657 ppm B) and 18254 (3155 ppm B). The samples are from H3 and Cotter Creeks, respectively, and consist of quartz amygdaloidal weakly carbonatized basalt, and andesite with a thin quartz-epidote vein, respectively. The high B content indicates that tourmaline is likely present in these



rocks. The ICP results (Appendix III) also show anomalous B results for 18257, 18258; and 18404 to 18411. These anomalies are probably actually due to "holdback" in the machine following the very high readings, rather than to the true B content of the rock samples. Elevated B occurring in soil samples, especially from 000 to 250E (9-457 ppm B), could lend credence to the rock sample results.

A float sample of epidote-rich andesite from Cotter Creek returned 70 ppb Au. Elsewhere on the property, the only other Unit 1 rock sample to contain anomalous values was 18392, float from Ted's Creek, which contained 30 ppb Au.

None of the Unit 1a rock samples contained anomalous elements. In Unit 2, sample 18364 returned 6400 ppm Ba, but no base or precious metals values; while 20973 (float) returned 16.8 ppm Ag and 13,964 ppm Cu. Attempts to find the source of the 20973 boulder located similar rock types but no anomalous values.

No samples were taken of Unit 3 limestone. In Unit 4, only sample 18353, a sheared, weakly pyritic diorite with calcite veining, returned anomalous results (1407 ppm Cu). A quartz vein up to 60 cm wide and nearby smaller veins cutting Unit 5 granodiorite on the west shore of Herbert Inlet just west of the Lazy Group yielded the following anomalous results:

Au (ppb)

18268	5	1,856 ppm Cu
18269	40	53 ppm As
18270	20	4,759 ppm Cu (over 2m)
18271	20	12,578 ppm Cu
18272	40	2,751 ppm Cu, 55 ppm As



An old adit was discovered near the head of Herbert Inlet. It is in Unit 1 rocks (mainly fine-grained, variably carbonatized basalts) and follows(?) one or more narrow quartz-carbonate veins. Very little mineralization (trace pyrite, locally) was observed in either the vein(s) or wallrock. None of the five rock samples collected along the 168 m length of the adit yielded anomalous results.

## 5.3 Silt Sampling

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A total of 43 silt samples was collected from creeks on the Lazy Group property. Their locations and selected results are plotted on Drawing Nos. 5 and 6. Silt was found to be uncommon in the steep, fast-flowing streams characteristic of the Lazy Group property, and many of the silt samples contain a high percentage of coarse sandy material. The samples were analyzed for Au by AA at Rossbacher Lab and by 30 element ICP at Acme Analytical Lab. Analytical results are included in Appendix III.

Only three of the silt samples contained Au. Samples H2, H4, and H7 contained 20, 30, and 40 ppb Au, respectively. All three are from the mountainside north of Cotter Creek. H4 and H7 are below the old Abco Mine and likely reflect the known mineralization. H2 is from\_a stream 1.2 km west of Abco Mine. All of the silt samples from the north side of Cotter Creek contain elevated to anomalous Cu (103 - 252 ppm), possibly as the area is mapped as Karmutsen Formation (which has a high background level of Cu). Sample H6, from Cotter Creek, upstream from the junction with Mine Creek, contains 157 ppm Cu, 36 ppm Pb, 107 ppm Zn, and 21 ppm As.



Elsewhere on the property silt sample results are generally low. In an area south of Cotter Creek underlain by Tertiary(?) diorite, anomalous Mo results of 17 ppm were returned from each of samples H10 and H12. In the Gibson Cove area, samples H92 and H98 contained 48 and 77 ppm As, respectively. H98 also contained 177 ppm Ba and 153 ppm Zn.

It is interesting to note that none of the silt samples taken from the south side of Cotter Creek contain anomalous Au, even from H18 Creek, where rock sample results of up to 2.02 g/t Au have been obtained. On the south side of Cotter Creek there are four weak Zn silt anomalies (95-99 ppm), three weak Pb anomalies (31-37 ppm), and two weak Cu anomalies (100 and 112 ppm). A previous silt sampling survey in 1984 located a silt sample highly anomalous in Au (540 ppb) in Lake Creek. None of the four silt samples (H10 - H13) collected in 1987 from this area contained anomalous Au.

#### 5.4 Soil Sampling

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Α total of 38 soil samples was collected from a single (approximately) east-west line north of Cotter Creek and south of the park boundary. Extremely dense undergrowth made it very difficult to find suitable soil for sampling and prevented the establishment of two more soil sampling lines which had been planned. As far as possible, the soil samples were of the B horizon, collected at depths of 5-10 cm. The samples were analyzed for Au by AA at Rossbacher Lab and by 30-element ICP at Acme Analytical Lab. Sample locations are plotted on Drawing No. 5 and Au, Cu, Pb, and Zn results on Figure 7; complete analytical results are included in Appendix III.



Anomalous soil sample results for Au, Cu, Pb, and Zn were determined by statistical methods. For each element, the mean and standard deviation were calculated using all of the samples. Any result over mean + 2 standard deviations was considered obviously anomalous and that result was deleted from the list. The mean and standard deviation were then recalculated using the remaining samples. Values over mean + 1 standard deviation are considered above background, while those over mean + 2 standard deviations are considered anomalous.

	Au (ppb)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Above background	25.3	119.2	19.8	69.6
Anomalous	38.4	166.3	24.6	87.6
Range	5-50	5-214	2-26	27-100

The most important feature of the results is a zone of anomalous Au (30-50 ppb) from 14+50E to 17+50E. This zone occurs directly below the Au mineralization of Abco Mine and may reflect either downslope transport from the known mineralized zone or an extension of Abco-type mineralization. The anomaly is essentially only a Au anomaly; the samples at 14+50E and 16+50E each contain elevated to weakly anomalous Cu, Zn, and Mn (120, 86 and 1514 ppm; 168, 74, and 1760 ppm, respectively), while 15+50E contains 0.4 ppm Ag.

A weak Cu-Zn(-Pb) anomaly is located from 8+00E to 9+00E associated with a 40 ppb Au result at 8+50E. From 11+00E to 12+50E elevated to anomalous Cu and Zn values are associated with 40 ppb Au results at 11+00E and 12+50E. Anomalous Cu, Zn, and Mn results (214, 90, and 3528 ppm, respectively) occur at 14+00E, just west of the Au anomaly.

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The Fe contents of the soil sample are anomalously high. Of the 38 samples, 27 contain over 4% Fe, ranging up to 11.95% Fe. Iron content does not have any discernable correlation with other elements, except possibly V and/or Cr.

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Soil sampling carried out south of Cotter Creek in 1985 did not locate significant indications of Au mineralization, even below the new gold-bearing zone located by 1987 rock sampling.



## 6.0 PROPOSED WORK PROGRAM

# 6.1 Plan

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The new zone of gold mineralization discovered by 1987 exploration will be the main focus of Phase II followup work. Additional detailed geological mapping and rock sampling will be carried in effort out an better to define control on mineralization, continuity of the mineralized system, and to locate extension(s) of the zone. Geochemical soil sampling as well as magnetometer and VLF-EM surveys will be carried out on a grid established over the known zone, extending from near Cotter Creek to about the 200 m elevation and from the western edge of the Lazy K 4 claim to about 1.5 km east.

Another area of interest is the H18 lineament, due to its similarities to the Big Boy Au-Ag mineralized structure. Extensive rock sampling and geological mapping will be carried out along as much of the lineament as is feasible. The very steep, cliffy terrain may prevent access to some part(s) of the structure.

Anomalous Au in soil samples north of Cotter Creek and in a 1984 silt sample from Lake Creek will be followed up with detailed rock sampling and geological mapping in an effort to locate the source of the anomalies. Reconnaissance geological mapping and rock sampling will be carried out over the upper parts of the property which have not been explored at all yet, including the southeastern end of the H90 lineament.



If warranted by favourable Phase II results, Phase III will consist of IP surveying to provide specific targets for subsequent diamond drilling. If additional zone(s) of interest are located away from the grid area, they will first be covered with their own geochemical/geophysical grid(s).

Cost estimates for Phases II and III are provided below.

# 6.2 Budget

## Phase II

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Mobilization/Demobilization	\$ 4,500
Personnel - geologist, soil sampler,	18,850
geophysical technician,	
prospector, assistant,	
consultant	
Support Costs - room & board, equipment	
rental, helicopter, etc.	17,715
Analyses	10,523
Report Writing	6,980
Administration and Contingency	12,834
Total, say	\$71,400

## Phase III

## 6.3 Schedule

Phase II work is estimated to require 17 days for completion of field work, with a further 4 to 5 weeks for compilation of results and report writing. Phase III is estimated to take a minimum of 3 months for completion, depending on its scope.



## 7.0 CONCLUSIONS

1. A previously unknown zone of gold mineralization was discovered by 1987 Phase I exploration of the Lazy Group. It has been explored for 150 m along H18 Creek and contains values of up to 2.02 g/t Au from grab samples, along with up to 8413 ppm Cu; 5661 ppm Pb; 4224 ppm Zn; and 7.2 ppm Ag. The zone consists of quartz <u>+</u> carbonate veins cutting altered mafic to intermediate volcanics, possibly of the Sicker Group, and associated feldspar porphyry dykes. The veins themselves tend to be narrow (5 to 10 cm) but altered zones (also gold-bearing) associated with veins are up to at least 2 m wide. Similar mineralization has also been located in H22 Creek, 150 m west of the H18 zone.

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- 2. The Lazy Group is underlain mainly by volcanic rocks, mainly mafic with lesser intermediate rocks, of unknown age. Interbedded cherty sediments, limestone, and basalt, possibly of the Sicker Group, occur in the southwest corner; granodiorite of the Island Intrusions(?) occurs on the west shore of Herbert Inlet; and a body of (Tertiary?) diorite occurs between Lake and H90 Creeks.
- 3. A very strong air photo lineament occupies the upper 1.8 km of H18 Creek. It has the same orientation as, and trends directly towards, the Big Boy mine, located on the opposite side of Herbert Inlet, about 3 km to the northwest. The Big Boy mine has produced 54.4 tonnes of ore grading 93.1 g/t Au and 54.3 g/t Ag.
- 4. Geochemical soil sampling located a zone of weakly anomalous (30-50 ppb) Au values in the area below the Abco



mine. These values are likely the result of downslope dispersion from the known Au mineralization at the Abco Mine, within Strathcona Park, but could be an indication of similar mineralized zones occurring nearby.

5. Silt sampling of Lake Creek in 1987 failed to locate anomalous Au values, however, previous silt sampling (1984) did locate a strong Au anomaly.

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6. Further exploration of the Lazy Group including Phase II geological, geochemical, and geophysical surveys is warranted. Depending on the results of Phase II work, additional work including IP surveying followed by diamond drilling may be warranted.



#### 8.0 RECOMMENDATIONS

- 1. It is recommended that Phase II exploration of the Lazy Group be carried out at an estimated cost of \$71,400.
- 2. In order to outline its size and to locate additional similar zone(s), detailed geological mapping and rock sampling of the new H18 Creek gold zone along with soil sampling, magnetometer, and VLF-EM surveys on a grid over the zone and surrounding area is recommended.
- 3. Rock sampling and geological mapping of the H18 lineament is reco ended to determine whether it contains Au-Ag mineralization like that of the Big Boy mine.
- 4. It is recommended that soil and silt samples from the area below the Abco Mine and from Lake Creek, which contained anomalous Au be followed up with rock sampling and geological mapping of the nearby areas.
- 5. It is recommended that the upper, as yet unexplored, parts of the property be covered by reconnaissance geological mapping and rock sampling.
- 6. Contingent upon favourable Phase II results, Phase III work including IP surveying and diamond drilling, and possib e additional soil sampling/magnetometer/VLF-EM grid(s), is recommended at an estimated cost of \$175,000.

Respectfully submitted,

MPH Consulting Limited

T. Neale, B.Sc

September 3, 1987

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#### CERTIFICATE

I, T. Neale, do hereby certify:

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- 1. That I am a graduate in geology of the University of British Columbia (B.Sc. 1978).
- That I have practised as a geologist in exploration for nine years.
- 3. That the opinions, conclusions, and recommendations contained herein are based on field work carried out on the claims by myself and other MPH Consulting Limited personnel in June and August 1987, library research work, and my experience in the area.
- 4. That I own no direct, indirect, or contingent interest in the subject property or shares or securities of Consort Energy Corp. or associated companies.

Zule

T. Neale, B.Sc.

Vancouver, B.C. September 3, 1987



#### REFERENCES

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Appendix I

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LIST OF PERSONNEL

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STATEMENT OF EXPENDITURES



# List of Personnel and Statement of Expenditures

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The following expenses have been incurred on the Lazy Group of claims as defined in this report for the purposes of mineral exploration. Separate statements have been prepared covering the 2 work periods: May 31 to June 6, 1987; and August 1-14, 1987.

## May 31 to June 6

	\$3,325.00	
	1,575.00	
•	175.00	\$5,075.00
	1,794.28	
	607.10	
	58.90	
\$392.00		
505.05	897.05	
	88.45	
	449.37	3,895.15
		\$8,970.15
	\$392.00	1,575.00 <u>175.00</u> 1,794.28 607.10 58.90 \$392.00 <u>505.05</u> 897.05 88.45



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# August 1 to 14, 1987

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Personnel		
T. Neale, B.Sc		
25 days @ \$350	\$8,750.00	)
C. Clayton, Assistant		
15 days @ \$150	2,250.00	)
T. Hayes, Field Supervisor		
3.5 days @ \$350	1,225.00	)
H. Chaudet, Assistant		
3 days @ \$150	450.00	)
G. Lorenzetti, B.Sc.		
1 day @ \$150	150.00	)
T.G. Hawkins, P.Geol.		
4 days @ \$500	2,000.00	)
Office Geological Assistance		
5 hrs @ \$ 45	225.00	<u> </u>
Disbursements		
Food and Accommodation	3,850.49	
Helicopter	2,779.92	
Transportation	1,241.01	
Miscellaneous Equipment and Supplies	123.86	5
Analyses		
5 rocks (Au assay) @ \$ 6.75	\$ 33.75	
134 rocks (Au, ICP) @ \$14.00	1,876.00	
38 soils (Au, ICP) @ \$11.85	450.30	
4 silts (Au, ICP) @ \$13.30	53.20 2,413.25	5
Drafting, Reproduction, Typing	1,197.42	2
Administration Fees	1,583.55	5 13,189.50
		\$28,239.50



Appendix II

ROCK SAMPLE DESCRIPTIONS

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LITHOGEOCHEMICAL RESULTS

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Sample No.	Description	Au (ppb)	Other (ppm)
18260	Quartz Vein - about 5 cm wide, with 30-50% rusty boxwork; heavily weathered. Cuts fine-grained dark green massive extensively epidote-veined basalt which contains quartz pods, 1-2% disseminated pyrite, trace galena near vein.	80	27 As, 72 Pb
18261	Dacite (tuff?) - fine-grained, light greenish grey, massive, extremely hard to break, contains 5-7% disseminated pyrite in patches to 2-3 mm long by 1 mm wide and isolated grains <1 mm. Weathered surface moderately rusty; moderate HCl reaction.	5	
18262	Andesite - fine-grained, medium green, massive, cut by network of thin pale green stringers (quartz-epidote?). Contains 5-7% pyrrhotite (+ pyrite?) in patches to 7 mm by 3 mm and trace chalcopyrite. Moderate HCl reaction.	10	
18263	Basalt - medium to fairly dark grey, soft, altered (weak to fairly strong HCl reaction), somewhat foliated. Contains 7-10% pyrite in cubes to 1 mm that occur in lensoid areas up to 10 mm by 3 mm subparallel foliation. Minor quartz-CO3 veining.	5	243 V, 6.8% Ca
18264	Cherty siltstone - fine-grained, black, slightly cherty; with areas of semi-massive pyrite to 1.5 cm by 1.5 cm.	5	18 Mo, 467 Cu, 1.1 Ag, 128 Ni, 262 Cr
18265	Cherty sediment - fine-grained, light grey, abundant rusty fractures; with <1% pyrite disseminated in cubes to 1 mm and 1-2% extremely fine pyrite(?) fracture coatings.	5	20 Mo
18266	Diorite - light grey, strongly altered; <1% pyrite in patches to 1 cm across; weak HCl reaction.	5	191 Sr
18267	Cherty sediment - fine-grained, light grey; about 1% disseminated pyrite.	5	
18268	Quartz vein - milky white; with about 3% chalcopyrite disseminated in patches to 3 mm by 2 mm, commonly with associated malachite stain. Minor HCl reaction indicates it is a quartz- CO <sub>3</sub> vein. About 30 cm wide.	5	1856 Cu, 264 Cr, 209 Ba
18269	"Quartz vein" - pale greenish white extremely silicified wall rock of 18268 vein; about 95% quartz, 5% granodiorite components. Contains about 2% fine disseminated pyrite and <1% disseminated chalcopyrite.	40	53 As, 230 Cr
18270	Quartz vein - chip sample across 2 m of 18268/ 18269 vein.	20	4759 Cu, 38 As, 225 Cr

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Sample No.	Description	Au (ppb)	Other (ppm)
18271	Quartz vein - about 5 cm wide, weak HCl reaction indicates minor CO <sub>3</sub> content; contains 3-5% chalcopyrite, abundant malachite, about 5-10% very fine-grained dark grey material (pyrite??). Cuts fine-grained black basalt about 2 m N of 18268/18269 vein.	20	12,578 Cu, 220 Cr, 10 W
18272	Granodiorite(?) - silicified, carbonatized; with <1-5% fine disseminated chalcopyrite (and/or pyrite), abundant malachite stain.	40	2751 Cu, 55 As, 200 Cr
18273	Silicified shear zone in basalt - zone about 15 cm wide, consists of quartz and silicified basalt fragments with about 1% pyrite in patches of very fine to medium (up to 1 mm) cubes to 5 mm across associated with basalt fragments.	5	271 Cr, 23·B
18274	Silicified shear zone in basalt - zone about 5 cm wide with trace pyrite.	5	29 As, 21 B, 12.13% Ca
18275	Cherty siltstone - light grey; trace dissemi- nated pyrite; rusty fracture surfaces; weak carbonatization in fractures.	5	27 As, 23 B
18276	Quartz-rich siltstone - fine-grained, light grey; up to 5% fracture pyrite, minor disseminated and stringer pyrite.	5	26 В
18277	Dirty chert - very fine-grained, medium to dark grey, minor quartz-CO3 veining to 3 mm about 5% of rock. Trace pyrite in veins and dissemi- nated in chert. Rusty fracture surfaces.	5	20 Mo
18278	Basalt - fine-grained, medium green-grey, weakly carbonatized, somewhat foliated. Contains trace disseminated very fine-grained pyrite and 0.5% pyrite + chalcopyrite associ- ated with knots of quartz-calcite to 1-3 mm across. Sulphides associated with calcite are coarser-grained and occur in patches to 3 mm by 1 mm. Abundant malachite stain.	10	8372 Cu, 186 Zn, 2.8 Ag, 11.24% Fe, 5.51% Mg, 5.77% Al
18280	Quartz diorite - fine-grained, medium speckled grey; cut by minor quartz stringers to 1 mm. Contains 1% finely disseminated pyrite.	5	
18301	Basalt - fine-grained, light green, altered, moderately pervasively carbonatized, <1% calcite amygdules and quartz amygdules, minor very thin (<0.5 mm) calcite stringers; contains about 5% chalcopyrite as fine fracture coatings, disseminations, and in patches to 10 mm by 5 mm. Very little malachite present. Float.	5	6209 Cu, 0.8 Ag
18302	Limestone - light grey; contains 5-10% pockets of pyrite-chalcopyrite to 30 mm by 5 mm surrounded by very heavy malachite stain. Float.	5	12,514 Cu, 0.9 Ag, 9 W



Sample No.	Description	Au (ppb)	Other (ppm)
18303	Dacite - light grey; contains 20% feldspar phenocrysts up to 3 mm by 1.5 mm, often rather rounded, in fine-grained groundmass; contains 2-3% very fine rusty specks, trace disseminated pyrite.	5	21 В
18304	Andesite - medium-grained, medium grey, massive, moderately pervasively carbonatized; cut by moderate amount of thin (<1 mm-3 mm) quartz-CO3 veinlets locally vuggy and rusty; contains trace-2% disseminated fine-grained pyrite in irregular feathery clumps to 2 mm by 1 mm.	5	
18305	Basalt - fine-grained, medium green, moderately to strongly foliated, strongly pervasively carbonatized; contains 15% chlorite clots 2 mm by 1 mm and 1-2% quartz-epidote knots to 4 mm across and moderate quartz-CO3-epidote veining to 1 cm thick. No sulphides noted.	5	130 Sr, 23 B, 7.2% Ca, 0.85% T
18306	Dacite - fine-grained pale green-grey, weakly carbonatized; cut by occasional dark grey quartz stringers and pods; contains up to 1% disseminated pyrite in cubes to 1 mm.	5 ,	23 B
18307	Quartz vein - 7-10 cm wide; white, vuggy along centre of vein. No sulphides noted. Sample 90% vein, 10% silicified basalt wallrock with trace disseminated pyrite.	5	261 Cr, 52 B
18308	Basalt - fine-grained, dark green, locally cherty; cut by many thin (up to 1 mm) quartz-epidote stringers and minor quartz stringers; contains 1% disseminated pyrite in cubes <1 mm and abundant rusty fractures and irregular pockets.	5	
18309	Basalt - fine-grained, pale green, strongly silicified, weakly carbonatized; cut by quartz + minor CO <sub>3</sub> veinlets to 8 mm wide; contains 2-5% disseminated pyrite in cubes to 2 mm and <2% local grey calcite pockets to 1.5 cm across. Possibly dacite.	5	
18310	Basalt - light green grey, highly altered, carbonatized but not silicified; contains 3-5% pyrite disseminated in very fine cubes (<0.5 mm) in patches to 2-3 mm and in streaks up to 5 mm by 1 mm. Cut by 2 quartz veins, 5 and 10 mm wide; the larger has abundant goethitic vugs, the smaller has pyrite, minor bornite(??) along its margins. Sample 10% veins, 90% basalt.	140	74 As
18311	Quartz vein - about 3 cm wide; white, crystal- line to 2-3 mm, occasional vuggy cavities, trace disseminated pyrite, occasional rusty	90	48 As

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Sample No.	Description	Au (ppb)	Other (ppm)
18311 cont.	partings; cuts fine-grained basalt with local irregular 1-2 mm rusty selvedges. From inter- section with #18310 vein.		
18312	Quartz vein - 6-7 cm wide; white, contains trace disseminated pyrite and abundant (10%) wallrock breccia fragments to 3 cm by 1 cm and 5% fragments totally weathered to rust to 7 mm by 5 mm. Wallrock (altered basalt?) contains 2% disseminated pyrite. Sample 80% vein, 20% wallrock.	30	
18313	Basalt - fine-grained, medium green, weakly carbonatized; contains 3-5% disseminated pyrite in cubes to 1.5 mm; cut by 3 cm white quartz vein with minor disseminated pyrite. Abundant rusty stain on basalt.	650	51 As
18314	Quartz vein - 7-8 cm wide; cuts fine-grained . medium green basalt with minor disseminated pyrite. Basalt stained rusty brown for 25 cm on either side of vein. Dark green chlorite(?) partings to 1.5 mm thick are 2% of vein. No sulphides noted in vein. Sample is 75% vein, 25% basalt.	5	
18315	Calcite vein - 5 cm wide; medium to dark grey; contains abundant highly altered pale green fine- to medium-grained (basalt?) layers to 5 mm thick and local lenses and pockets of white quartz, 1-2% fine-grained pyrite dissem- inated in altered basalt and trace pyrite associated with quartz.	5	21.34% Ca
18316	Basalt - fine-grained, light green; cut by quartz-CO3 veinlets <1 mm; contains up to 3% fine-grained pyrite disseminations and up to 3% very fine-grained pyrite in patches to 1.5 cm across. Wallrock of 18315 vein, contains about 15% dark grey calcite vein material of 18315.	5	6.89% Ca
18317	Quartz vein - 3 cm thick; white, crystalline to 2-3 mm; contains 5-7% galena disseminated in clots to 8 mm by 3 mm, and <1% chalcopyrite disseminated in blebs to 2 mm across, often associated with galena. No pyrite observed.	560	842 Cu, 5661 Pb, 4224 Zn, 2.3 Ag, 109 Cd, 5 W
18318	Dacite - fine-grained, pale green; contains 6% rounded, rather faint feldspar phenocrysts up to 2-3 mm across, and 15% mafic clots up to 2-3 mm across, as well as abundant (3-5%) dissem- inated pyrite in cubes to 1 mm, minor stringer pyrite <1 mm, and trace very fine-grained disseminated chalcopyrite. Weakly carbonatized. Cut by white quartz + CO3 veins to 2 cm wide containing trace disseminated pyrite. Wallrock of sample 18317. Sample is 30% quartz veins, 70% dacite.	680	87 Pb, 193 Zn

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Sample No.	Description	Au (ppb)	Other (ppm)
18319	Quartz-calcite vein - white quartz and grey calcite (70%, 30%, respectively) with trace disseminated pyrite, trace disseminated galena; cuts fine-grained medium green silicified, weakly carbonatized basalt with 5-25% disseminated to selvedge pyrite. Sulphides strongest near veins. From a 2 m wide veined zone. Sample is 60% vein(s), 40% basalt.	2000	286 Pb
18320	Dacite - fine-grained, pale greenish grey, altered, very weakly carbonatized; contains abundant (20-30%) quartz-CO <sub>3</sub> veinlets to 1 cm commonly with rusty brown selvedges and partings to 2 mm wide; contains 3-5% dissemi- nated pyrite in cubes to 1 mm and 1-2% stringer or fracture coating pyrite to 1 mm thick. From a zone 2.5 m wide of light rusty brown weather- ing rock with abundant quartz-CO <sub>3</sub> veining.	5	
18321	Epidote-quartz alteration pods - irregular circular zones to 10 cm diameter with core of very fine-grained massive black magnetite, 15-20% pyrite locally, trace chalcopyrite, abundant rusty stain, minor malachite. Core zone at least 4 cm across. Occurs in very fine-grained black basalt with 10% feldspar phenocrysts to 3 mm. Basalt is somewhat silicified or hornfelsed, cut by abundant quartz-epidote veinlets to 2-3 mm. Basalt and alteration pods are both moderately to strongly carbonatized.	70	8413 Cu, 989 Zn, 7.2 Ag, 58 Co, 10.77% Fe, 22 Cd
18351	"Aplite" dyke - about 20 cm wide, white to beige, fine-grained, weathers slightly rusty brown; contains fine-grained 35-40% quartz grains and fine (<1 mm) biotite(?) flakes. No sulphides noted. Cuts medium-grained diorite.	5	
18352	"Aplite" dyke - about 1.5 m wide, fine-grained (although not particularly sugary-textured) mixture of quartz and feldspar with 15% very fine-grained greenish biotite(?) and 1% disseminated very fine-grained pyrite. Dyke cut by parallel shear zone.	5	187 Ba
18353	Diorite - cut by shear zone; contains <1% disseminated pyrite locally associated with calcite veinlets and blebs.	5	1407 Cu
1835 <u>4</u>	"Aplite" - fine-grained feldspar + quartz and 20% mafics; local minor fine-grained dissemi- nated pyrite; fairly abundant bright green (organic?) stain.	5	
18355	Andesite - fine-grained, medium greenish grey, massive, nondescript. Locally 1-3% disseminated pyrite associated with minor CO3 veinlets. Andesite weakly carbonatized in pyritic areas.	5	



Sample No.	Description	Au (ppb)	Other (ppm)
18356	Andesite - fine-grained, dark green, cut by many quartz veinlets <1 mm. Contains <1% pyrite disseminated near veinlets in cubes <1 mm to blebs 3 mm long.	5	
18357	Andesite - fine-grained, dark grey, minor quartz veining, minor disseminated pyrite.	5	
18358	Granodiorite - greyish white; contains 30% quartz, 20% fine-grained mafics, <1% fine- grained disseminated pyrite.	5	189 Ba
18359	Tuff(?) - very fine-grained, altered, carbonatized; very soft; occasional calcite veinlets to 1-2 mm; disseminated pyrite <1% (local patches to 5%).	5	
18360	Quartz vein - up to 8 cm wide; abundant bright green (organic?) stain, minor pink stain; cuts fine-grained, dark grey, massive basalt. No sulphides noted.	5	0.6 Ag
18361	Basalt (tuff?) - fine-grained, dark grey, cut by occasional quartz stringers <1 mm; contains <1% disseminated pyrite and pseudo-stringer pyrite associated with quartz stringers.	5	362 Cu .
18362	Quartz vein - about 1 cm wide, cutting very fine-grained black siltstone. Contains 5-15% pyrite. Sample 80% vein, 20% siltstone.	5	182 Zn, 0.348% P
18363	Cherty sediment - fine-grained, light grey to whitish brown, trace-2% disseminated pyrite.	10	215 Zn
18364	Felsic tuff - pale greenish white; contains frequent green specks and spots of chlorite(?) (fuchsite??). No sulphides noted.	5	209 Sr, 6400 Ba
18365	Chert - medium grey, somewhat silty, locally banded, local disseminated pyrite trace-0.5%.	5	
18366	Diorite - fine-grained, unmineralized.	80	278 Cu, 157 Ba
18367	Andesite dyke - fine-grained, medium green grey, trace disseminated pyrite, about 30 cm wide, cutting granodiorite.	5	
18368	Basalt - medium-grained, medium greenish grey, weakly carbonatized; cut by minor quartz veining 1 mm-5 mm wide with trace pyrite.	5	
18369	Cherty siltstone - very fine-grained, dark grey to black, weathers rusty; cut by occasional quartz veinlets to 1 mm; contains up to 1% pyrite.	5	210 Cr
18370	Diorite - fine-grained, dark greyish green, weathers brown; minor quartz veining to 5 mm with trace associated pyrite.	5	

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Sample No•	Description	Au (ppb)	Other (ppm)
18371	Altered basalt(?) - light green to dark greyish green, weathers brown to rusty; cut by minor quartz veining to 1 mm with trace associated pyrite; trace disseminated pyrite in basalt. May be fine-grained diorite.	5	445 Cu
18372	Altered basalt(?) - fine-grained, dark greenish grey, reddish-orange staining on weathered surface; cut by abundant quartz stringers and by minor quartz veins with trace pyrite. One quartz vein 1 cm wide contains trace chalco- pyrite and associated greenish stain.	5	372 Cu
18373	Basalt - fine-grained, dark green to purplish green, massive; cut by irregular thin vuggy quartz-CO3 veinlets to 8 mm with frequent rusty boxwork; 1-2% quartz amygdules to 4 mm. 3 patches of chalcopyrite(?) to 2 mm across occur in basalt near largest quartz vein. Trace chalcopyrite, trace pyrite overall in sample. Float.	5	238 V
18374	Basalt - fine-grained, medium grey, about 10% quartz amygdules to 4 mm, weakly carbonatized, vesicular-looking weathering surface; cut by abundant thin epidote and epidote-pyrite, and a few pyrite stringers, mainly <1 mm; contains 2-15% disseminated and fracture surface pyrite with another 2-3% stringer pyrite. Float.	5	299 Cu, 0.72% Ti
18375	Quartz vein - up to 50 cm wide, very irregular; contains abundant (30%) silicified angular fragments of wallrock (fine-grained, dark green, epidote-veined basalt), abundant pale green material along edges of wallrock fragments and in vein itself (epidote?). No sulphides noted.	5	32 As
18376	Basalt - contains up to 50% feldspar pheno- crysts to 4 mm, minor quartz stringers, trace to locally, 1-2%, disseminated pyrite. From a minor fracture or fault.	5	
18377	Basalt - very fine-grained, medium green grey, non-carbonatized; cut by numerous quartz stringers from hairline to 3-4 mm wide with occasional associated seams of pyrite <1 mm thick by up to 1.5 cm long; trace disseminated pyrite.	5	113 Ni
18378	Basalt tuff - medium grey; fragments to about 2 mm are darker in a fine-grained lighter matrix. Cut by a vein(?) of pale green grey material to 1 cm wide. Contains 1-2% dissemi- nated pyrrhotite <u>+</u> pyrite in patches to 4 mm by 2 mm. Weathers rusty. Very weak HCl reaction.	5	176 Zn

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Sample No•	Description	Au (ppb)	Other (ppm)
18379	Diorite - fine-grained, light to dark grey, weathers rusty; cut by abundant quartz stringers; contains up to 2% arsenopyrite(?) locally, and trace to, locally 1%, pyrite.	5	226 V, 220 Cr
18380	Dacite(?) (tuff?) - medium grey, soft, altered, weakly foliated; contains 1% extremely fine-grained disseminated pyrite with local patches to 1-2 mm across and some rusty cavities to 1 cm by 1-3 mm. Float.	5	
18381	Basalt - fine-grained, dark grey to black; <1% pyrite in patches to 4 mm and fine-grained disseminations associated(?) with occasional quartz stringers to 1-2 mm and a dioritic dykelet about 1 cm wide. Pyrite also locally disseminated in cubes to 1 mm. Probably float.	5	326 Cu
18382	Dacite - light grey, altered, massive, no HCl reaction, weathers very rusty; contains 5% to locally 10% disseminated pyrite in cubes to 1.5 mm and occasional patches to 4 mm. Pyrite tends to be concentrated in thin "layers" along darker coloured lines (fractures?). Float.	5	
18383	Diorite - contains 30-40% roundish magnetite aggregates to 1 cm across, average 5-8 mm; and trace to 0.5% disseminated pyrite. Minor quartz veining up to 4 mm wide has occasional trace pyrite or rusty specks. Float.	5	
18384	Quartz diorite - fine- to medium-grained, dense and heavy; contains occasional basalt fragments to 5 cm across with trace to 1% disseminated pyrite; trace to 0.5% disseminated pyrite in intrusive. Intrusive could be silicified diorite.	10	
18385	Diorite - fine- to medium-grained, weathers rusty, contains basaltic xenoliths; cut by quartz-CO3 veining to 5 mm wide. Pyrite disseminated up to 3-5%, especially in finer- grained parts (resorbed basalt?), averages trace to 1%.	5	
18386	Dacite - fine-grained, light grey green, hard; cut by network of quartz stringers and veinlets to 2 mm wide, minor quartz-CO3 stringers. Local minor (0.5%) disseminated pyrite. Float.	5	
18387	Dacite - fine-grained, light green to light grey, altered, weakly to mildly carbonatized; abundant (15%) irregular rusty-red (hematitic?) patches to 3 mm by 2 mm and trace disseminated pyrite. Possibly float.	5	
18388	Cherty siltstone breccia - clasts of dark grey to black cherty siltstone (or mudstone) and one clast of medium green-grey chert in very little	5	109 Ni, 148 Sr, 262 Cr

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Sample No.	Description	Au (ppb)	Other (ppm)
18388 (cont.)	matrix; 5% irregular quartz pockets to 2 cm by 0.5 cm, 2-3% epidote pockets to 1 cm by 0.5 cm locally associated with quartz; contains 2-5% (locally 10%) disseminated pyrite in cherty fragments and in quartz pockets. Weathers rusty. Float		
18389	Diorite - medium-grained; cut by a network of quartz stringers to 6 mm wide; trace pyrite disseminated in diorite near stringers.	5	
18390	Dacite - fine-grained, light grey, altered, locally weakly to moderately carbonatized; contains 3-5% fine disseminated pyrite; weathers rusty. Float.	5	
18391	Diorite - heavily altered; extensive quartz $\pm$ CO <sub>3</sub> veinlets; weathered surface very rusty, especially near veinlets; trace disseminated pyrite to locally 1%. Float.	20	0.244% P
18392	Basalt - fine-grained, light grey, altered, moderately carbonatized, weathers rusty yellow-brown; trace to locally 1-2% disseminated pyrite in cubes to 1 mm. Has dacitic appearance (due to alteration?).	30	
18393	Basalt - fine-grained, dark green weathering very rusty; cut by fairly abundant quartz veinlets to 5 mm and by a 30-40 cm wide granodiorite(?) dyke. Larger quartz veinlets are vuggy. Only barest trace pyrite observed.	5	1595 Mn, 245 V
18394	Granodiorite - light brownish white weathering, slightly rusty; contains 20-25% quartz, 60-70% feldspar, 5-20% mafics (including biotite) and trace pyrite as a <1 mm by 3-5 mm seam in a fracture	20	
18395	Basalt - fine- to medium-grained, pale to medium green, altered. Extensive quartz-CO3 veining and mild pervasive carbonatization. Trace disseminated pyrite in cubes to 1 mm. Float.	5	
18396	Basalt - medium-grained, medium green to grey weathering somewhat rusty; cut by abundant quartz <u>+</u> CO <sub>3</sub> stringers to 4 mm wide, locally vuggy. No sulphides noted.	5	
18397	Quartz-carbonate vein - about 5 cm wide; trace to locally 1-2% disseminated pyrite; cuts extensively altered medium-grained diorite. Sample 90% vein, 10% diorite.	5	
18398	Diorite - fine- to medium-grained, medium to dark grey weathering rusty, doesn't have a "good" intrusive texture (i.e.possibly volcanic). Cut by several quartz-CO3 veinlets to 3 mm. Trace pyrite (1 speck) in diorite.	5	

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Sample No.	Description	Au (ppb)	Other (ppm)
18399	Quartz-carbonate vein - 3-30 cm irregular width, splitting locally into several thinner veins; contains abundant rusty fractures, is very friable; cuts fine- to medium-grained diorite with trace pyrite near vein. Sample 70% vein, 30% diorite.	5	
18400	Diorite - very heavily altered, medium to strong pervasive carbonatization, soft, light greenish grey (somewhat dacitic-looking); minor quartz-CO3 veining; trace disseminated pyrite.	5	
18401	Basalt - dark green, weathered surfaces have some rusty and brownish staining on fracture surface; fine-grained; epidotized; amygdules of epidote sparsely distributed; inclusion of mafic minerals sparsely distributed; very weakly carbonatized; pyrite in trace amounts but forming compact granular aggregates locally, thus comprising up to 3% of viewing area; also forms occasional stringers. Float.	5	
18402	Quartz carbonate vein in basalt ( $\approx$ 3 cm wide) - white with layers of darker minerals sparsely distributed; weathered surface, rusty; medium grain size; basalt is dark grey and fine- grained; rust on weathered surface; pyrite trace to 1% locally. Float.	20	201 Sr, 16.02% Ca
18403	Basalt - dark grey with greenish tint; rusty stain on fracture surfaces; fine-grained; weakly carbonatized; quartz filled amygdules sparsely distributed; pyrite trace to 3% locally, formed by compact granular aggregates. Float.	5	13 Sb, 19.75% Ca, 31,657 B
18404	Quartz carbonate vein - white to greyish white; fine-grained; small inclusions ( $\approx$ .5 cm diam.) of epidote, yellow-green and green; width of vein is 5 cm and visible over 5 m, striking 274° and dipping 76° N; sample is 85% quartz and 15% wallrock; no visible mineralization. Outcrop.	5	55 B
18405	Basalt - wallrock of sample 18404; dark greyish green; fine-grained; carbonatized; quartz carbonate veins to 1 cm thick; amygdules of epidote (1 mm diam.) sparsely distributed; pyrite trace to 1%.	5	79 B
18406	Basalt - dark greenish grey; fine-grained; sparsely distributed phenocrysts of mafic minerals up to 1 cm long and 2 mm wide; amygdules of epidote sparsely distributed up to 1 mm diam.; weakly carbonatized; Py trace to 1%; possible trace chalcopyrite. Outcrop.	5	2746 Cu, 45 B

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Sample No.	Description	Au (ppb)	Other (ppm)
18407	Magnetite-rich tonalite - medium grey, salt and pepper texture on fresh surface; brown on weathered surfaces; dark inclusions; medium- grained; strongly magnetic; magnetite to 35%; quartz >10%; hornblende and other mafic minerals (biotite) 55%. Outcrop.	5	33 B
18408	Amygdaloidal basalt - light grey; rusty brown stain on weathered surfaces, minor manganese oxide staining; amygdules of albite(?) and quartz, medium-grained; quartz stringers abundant; trace pyrite; silicified. Outcrop.	5	31 B
18409	Basalt - dark green; rusty fracture surface; fine-grained; quartz stringers sparse; trace pyrite. Outcrop.	5	23 B
18410	Basalt - float 3mx4mx2m; dark green fresh surface; brown to rusty on fracture surface; fine-grained; sparse quartz-carbonate stringers; pyrite in trace amounts to compact granular aggregates comprising 2% locally; one pyrite cube 1 mm <sup>2</sup> . Float.	5	
18411	Quartz vein - dark grey; fine-grained; rusty weathered surfaces; 12 cm width; visible for 2 m approx.; strike 116°, dip vertical; disseminated pyrite up to 5-8% locally in compact granular aggregates; individual pyrite cubes to 1 mm <sup>2</sup> ; pyrite stringers sparse to 2 mm thick and 5 mm long; wallrock is basalt. Outcrop.	60	11 Mo, 25 B
18412	Quartz vein - white; fine-grained; in fine- grained basalt porphyry (plagioclase pheno- crysts?) wallrock; sample $\approx 60$ % wallrock, 40% quartz vein; 2 cm width visible for $\sim 1$ metre; strike 068:dip vertical; plagioclase pheno- crysts(?) in wallrock; pyrite is megascopically visible in quartz vein in cubes up to 1 mm <sup>2</sup> but very sparse; wallrock contains pyrite in trace amounts up to 1% locally. Outcrop.	5	68 Pb
18413	Basalt - dark green to greyish green on fresh surface; rusty to brown on weathered surface; fine-grained; abundant quartz stringers; individual pyrite cubes up to 1 mm <sup>2</sup> ; pyrite disseminated throughout up to 2% locally and occasionally forming compact granular aggregates up to 1 mm diameter. Outcrop.	820	48 Pb, 30 As
18414	Basalt - greenish grey to grey; fine-grained; quartz carbonate "lens" $\approx$ 5 cm diam. near contact zone of dacite dyke with basalt; sample $\approx$ 70% wallrock, 30% "lens"; pyrite in trace amounts to 2% locally as well as appearing infrequently as stringers; appears also as compact granular aggregates up to 1 mm diam.; possible trace chalcopyrite.	5	642 Cu, 36 As

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Sample No.	Description	Au (ppb)	Other (ppm)
18415	Carbonate quartz vein - white, enclosed by light greenish grey dacite; vein approx. 2.5 cm wide striking 004 and dipping 70°E; no visible mineralization; dacite has pyrite in compact granular aggregates up to 1% locally; sample is approx. 50% wallrock and 50% quartz carbonate vein. Outcrop.	5	8.47% Ca
18416	Basalt - greyish green on fresh surface; brown to rusty on weathered surface; fine-grained; abundant quartz carbonate stringers as well as veins up to 1 cm thick; pyrite to 3% locally in compact granular aggregates; occasionally forms stringers up to .5 cm thick and 4 cm long; trace chalcopyrite but sometimes forming compact granular agregates locally up to .5 cm in diam.; malachite trace. Outcrop.	5	646 Cu
18417	Magnetite-rich tonalite - medium grey, salt and pepper colouring on fresh surface; brownish on weathered surface; dark inclusions; medium- grained; strongly magnetic; magnetite to 35%; quartz >10%; trace pyrite; hornblende and other mafics (biotite) 55%. Float.	5	244 V
18418	Granodiorite - light grey with a pinkish hue in areas; rusty, brown on weathered surfaces; medium-grained; quartz ~35%; trace pyrite, forming cubes locally to .5 mm. Outcrop.	5	
18419	Dacite - greenish grey on fresh surface; brown on weathered surface; medium-grained; pyrite trace to 1% locally in compact granular aggregates; epidote inclusions $\sim$ 5-10% and up to 2 cm across. Outcrop.	5	
18420	Dacite dyke(?) - light green, fine-grained; probable orientation 350/vertical; 1 m wide, visible for 8 m; pyrite trace to 1% locally in compact granular aggregates. Outcrop.	5	
18421	Basalt - dark grey, fresh surface; rusty weathered surface; fine-grained; occasional quartz stringers; trace pyrite. Float.	5	
18422	Granodiorite - light grey on fresh surface; brown on weathered surface; low mafic mineral content; medium-grained; trace pyrite. Outcrop.	5	
18423	Basalt - dark green to greyish green; medium-grained; abundant quartz stringers as well as veins up to 1 cm wide; pyrite in very trace amounts. Outcrop.	5	
18424	Cherty siltstone - fine-grained, medium green to purplish; contains trace disseminated pyrite with local small pockets of semi-massive pyrite to 3-4 mm by 1 mm.	5	

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Sample No.	Description	Au (ppb)	Other (ppm)
18425	Cherty siltstone - black, very carbonaceous- looking; fracture surfaces have thin (<0.1 mm) coating of quartz(?) and minor rust; contains trace pyrite.	5	188 Sr, 7.31% Al, 0.51% Na
18426	Basalt - fine-grained, pale green grey, altered; extensively quartz-CO3 altered and stringered, locally with up to 5% disseminated fine-grained pyrite, averages about 1% pyrite.	5	4.26% Mg
18427	Cherty siltstone to siltstone - fine-grained, light grey to purplish; locally has little or no apparent silica content; contains 1% finely disseminated pyrite with local areas of abundant fairly coarse-grained pyrite. Total pyrite content 1-2%.	5	
18428	Chert - medium grey to green weathering white; contains 2% disseminated pyrite in cubes to 1.5 mm and local patches of extremely fine-grained pyrite(?) to 4 mm across associated with quartz films on fractures. Rusty fracture surfaces common.	5	386 Ba
18429	Basalt - fine-grained, dark grey, massive; cut by minor quartz stringers to 1 mm and contain- ing local concentrations of disseminated pyrite to 1% in cubes <1 mm and one pyrite stringer 2 mm wide by 25 mm long close to a quartz veinlet. Overall pyrite content is trace. Weathers quite rusty.	5	0.6 Ag, 14 Sb
18430	Cherty siltstone - strongly fractured; contains trace to 1% pyrite, occasionally forming seams subparallel to bedding.	5	384 Cu
18431	Cherty mudstone - black, weathering light grey; contains 3-5% pyrite disseminated in cubes to 3 mm and in fracture surfaces.	5	
18432	Calcite <u>+</u> quartz vein - about 5 cm wide; massive, white; trace disseminated pyrite; cuts fine-grained medium green basalt (tuff?) with trace disseminated pyrite. Sample 60% vein, 40% basalt.	5	412 Sr, 34.46% Ca

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Sample	Description	Au	Other
<b>No</b> . 20959	Altered Basalt (Agglomerate?): Green, strongly carbonatized and epidotized basalt. Coarse, frag- mental, possibly agglomerate. 10%, 1 mm to 2 mm calcite veins with trace chalcopyrite, pyrite. Epidote as 3 to 5 mm pseudomorphs after plagioclase. Clasts to 5 cm, dominantly fine-grained sedimentary volcanic. Minor vuggy quartz vein- lets. Somewhat rusty weathered surface.	(ഊb) 5	(ppm)
20960	Altered Basalt(?): Dark greenish- grey, very fine-grained altered basalt(?). Mildly carbonatized, silicified. Possibly fragmental. 2% very finely disseminated pyrite, trace pyrrhotite(?). Weathered surface is rusty.	5	
20961	Altered Basalt: Green, fine-grained altered basalt, possibly crystal tuff. 2 to 3 mm crystals of plagio- clase, quartz in a pale green aphanitic matrix. Crystals comprise up to 50%. Strongly carbonatized with sparse 7 mm calcite veinlets. 1% coarse disseminated pyrite (crystals up to 2 mm) in association with calcite. Rusty weathered surface. Float.	1960	164 Sr
20962	Altered Basalt: Pale green, intensely silicified very fine-grained basalt. Trace pyrite. Rusty weathered surface.	5	
20963	Altered Basalt: Very fine-grained to aphanitic grey-green altered basalt. Trace to 1% disseminated pyrrhotite. Trace pyrite. Moderately carbonatized, chloritized, epidotized with rusty fractures and weathered surfaces.	80	307 Cu
20964	Altered Basalt: Dark green silici- fied fine-grained basalt. Sparse quartz, epidote veinlets. Trace pyrite. Rusty weathered surface. Somewhat foliated.	5	
20965	Altered Basalt: Dark grey silici- fied fine-grained basalt(?) with 60% quartz vein(?). Quartz vein is pale grey-green to tan coloured. 2% very finely disseminated pyrite. Trace pyrrhotite. Rusty weathered	5	

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Sample No•	Description	Au (ppb)	Other (ppm)
20966	Altered Basalt: Dark green silici- fied thin-bedded to laminated tuff. Quartz filled fractures and tension gashes. Somewhat epidotized. Trace pyrite. Rusty weathered surface.	5	
20967	Altered Basalt: Pale green-grey fine-grained strongly silicified lapilli tuff(?). 10% finely disseminated pyrite. Rusty weathered surface. Sparse, 1 mm to 3 mm quartz veinlets.	5	
20968	Altered Basalt: Pale green-grey, fine-grained, strongly silicified basalt(?). 10% coarsely disseminated pyrite in association with silicifi- cation (vein selvages). Rusty weathered surface.	5	
20969	Altered Basalt: Pale green-grey fine-grained strongly silicified basalt(?). 10% coarsely disseminated pyrite in association with silicifi- cation (vein selvages). Rusty weathered surface.	5	
20970	Altered Basalt: Grey-green fine- grained, moderately silicified basalt(?). 15% finely disseminated pyrite. Trace chalcopyrite, pyrrho- tite. Sparse 2 to 5 mm calcite veins. Rusty weathered surface.	5	7.5% Ca
20971	Altered Basalt: Green fine-grained silicified basalt. Trace pyrite. Numerous quartz/epidote veinlets up to 8 mm. Rusty weathered surface.	5	5.2% Ca
20972	Argillite: Dark grey to black aphanitic thin-bedded to laminated cherty argillite. 40% very fine primary pyrite. Rusty weathered surface. Mildly silicified. Sparse quartz veinlets.	5	
20973	Silicified Basalt: Pale green-grey intensely silicified basalt; up to 50% grey quartz. Chalcopyrite, malachite, azurite, bornite, to a combined total of 2% in association with quartz veinlets. Pyrite finely disseminated throughout to 10%. Malachite, azurite and iron oxide staining on fractures and weathered surfaces. Float.	5	16.8 Ag, 13964 Cu 17 Mo, 8 W, 36 As

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			(MPH)
Sample No.	Description	Au (ppb)	Other (ppm)
20974	Sulphidic Argillite: Dark grey to black aphanitic sulphidic argillite. 40% very fine primary pyrite. 10% fracture fill medium-grained pyrite. Somewhat graphitic. Minor quartz veinlets <1mm. Boxwork texture on rusty weathered surfaces.	5	418 Cu, 13 Mo
20975	Quartz Carbonate Vein/Altered Basalt: Dark grey-green fine-grained carbona- tized basalt cut by 5 cm massive quartz- carbonate vein. Trace to 1% disseminated pyrite in host rock. Vein comprises 50% of sample.	5	
20976	Calcite Vein: Coarsely crystalline calcite veining in chloritized basalt(?). Host basalt is brecciated, dark green, fine-grained and represents up to 50% of sample. Trace pyrite cubes up to 1 mm.	5	14.3% Ca
20977	Altered Basalt: Pale grey-green, very fine-grained carbonatized basalt(?). Possibly fragmental. Trace sphalerite associated with 1 mm to 2 mm quartz epidote veinlet. Trace pyrrhotite, pyrite. Mildly epidotized, moderately chloritized.	5	25 В
20978	Altered Basalt: Dark green fine- grained chloritized basalt(?) with 50% coarsely crystalline white calcite open space fillings. Twinned calcite crystals to 2 cm. Trace pyrite.	5	19.2% Ca, 458 Sr, 3009 Mn
20979	Fresh Basalt: Dark green, fine- grained, relatively fresh basalt. Trace pyrite. Minor quartz. Minor iron oxidization.	5	
20980	Basalt: Dark green, very fine- grained basalt. Trace pyrite. Possibly a dyke. Brown weathered surface. Trace magnetite.	5	
20981	Quartz Vein: White to pinkish white massive quartz vein, 20 cm wide. Trace pyrite. Sample is entirely vein material. Host rock is basalt.	5	
20982	Hornblende Diorite: Dark grey, fine- to medium-grained chloritized hornblende diorite. Trace pyrite. Brown weathered surface.	5	222 Cr
20983	Hornblende Diorite: Dark grey, fine- to medium-grained chloritized hornblende diorite. Trace pyrite. Brown weathered surface.	5	

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Sample No.	Description	Au (ppb)	Other (ppm)
20984	Hornblende Diorite: Dark grey fine- to medium-grained chloritized hornblende diorite. Trace pyrite. Brown weathered surface.'	5	149 Ni, 397 Cr
20985	Sulphidic Argillite: Dark brown to black, aphanitic sulphidic argillite. Less than or equal to 50% primary pyrite. Pyrite is also fracture filling with crystals up to 3 mm. Trace pyrrhotite. Trace graphite. Thinly laminated. Weathered surface is extremely rusty.	5	
20986	Diorite: Grey to dark grey, mildly chloritized medium- to fine-grained diorite. Trace pyrite. Somewhat oxidized weathered surface.	5	

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CERTIFICATES OF ANALYSIS

	RO	SSBACHER LA Certificate d		LTD.	2225 S. SPRINGER AVENUE BURNABY, B.C. V5B 3N1
Ũ	PROJI TYPE	MPH CONSULTING LTD. #2406-555 W.HASTING VANCOUVER B.C. ECT: V 261 OF ANALYSIS: GEOCHEMI	S ST. (BOX 12092)	CERTIFICATE#: INVOICE#: DATE ENTERED: FILE NAME: PAGE # :	7660
	PRE FIX	SAMPLE NAME	 PPB Au		
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	BBACHER LABOR		TD.	2225 S. SPRINGER AVENUE BURNABY, B.C. V5B 3N TEL : (604) 299 - 6910
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AP-20967	1	46	11	47	.1	4	17	174	5.42	1	5	ΝÐ	1	- 4	1	2	2	8	1.13	.074	2	25	1.07	17	.18	2	1.99	.04	.07	1	
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AP-20767	1	43	16	58	.1	12	22	614	6.31	4	5	ND	ĩ		1	2	6	п	.55	.056	2		1.52	10	.06	_	1.73	.04	.24	1	
AP-20770	1	57	12	64	.1	2	16	831	5.13	1	5	ND	1	41	1	2	2	107	7.50	.075	2	12	.95	17	.21		3.17	<b>.</b> 02	.07	1	
AP-20971	1	36	17	69	.1	8	13	811	4.23	6	5	ND	1	53	1	2	2	108	5.17	.066	2	50	1.98	11	.24		4.38	.02	-05	1	
AP-20972	1	23	- 14	- 77	.1	22	7	205	3,36	8	5	ND	1	47	I	2	2	2	3.32		- 4		1.14	8	.22		1.17	-04	.02	1	
AP-20973	17 3	13964	10	54	14.8	16	16	223	3.43	36	5	ND	1	12	1	2	2	20	.44	.017	2	101	.77	7	.07	2	1.24	.02	.05		
AP-20974	13	418	15	1	.4	51	20	212		<u>2</u> 2	5	ND	1	4	1	2	4	110	. 61		2	74	.61	4	.30		1.08	.07	.05	2	
AP-20975	1	47	2	50	.1	7	11	517	2.91	2	5	ND	1	- 44	1	2	- 4		3.16		2		1.02	32	.01		1.31	.02	.11	1	
AP-20776	1	- 46	8	52	.2	17	11	1487	3.37	8	5	ND	2	179	1	2	3		14.23		- 4	40	1.30	29	.07		1.69	.01	.13	1	
AP-20177	1	79	7	32	.1	21	11	403	1.97	13	5	ND	i	43	1	2	2		<b>4.2</b> 7		2	90	.70	5	.43		1.23	.01	.02	2	
AP-20978	1		15	74	.1	23	12	3007	4.16	4	5	MD	2	45	1	2	4	47	17.18	.071	5	34	1.40	42	.01	2	2.11	.01	.15	1	
AP-20779	1	11	2	18	.1	2	11	879	4.06	4	5	ND	1	27	1	2	2		1.11		4		1.37	23	-16		1.94	.05	.06	1	
AP-20780	1	136	21	107	.1	37	24	134	6.56	. 1	5	ND	1	24	1	2	2	147	1.29		5		2.10		.57		2.28	.04	.02	1	
AP-20181	1	21	- 4	35	.1	2	- 4	420	1.87	3	5	ND	2	24	1	3	2	1	. 89	-044	5	13	.40	62	-05		1.14	-04	-14	1	
AP-20982	1	- 40	12	54	.1	54	17	<b>663</b>	4.58	5	5	ND	1	20	1	2	2		1.07		4		2.43	28	.30		2.46	-01	.06	1	
AP-20983	1	46	2	27	.1	14	14	404	2.21	4	5	ND	1	45	1	2	2	52	1.15	.018	2	55	1.92	14	.12	4	2.58	.15	.15	ĭ	
AP-20784	1	37	20	68	.1	149	34	1006	4.94	7	5	ND	1	2	1	2	2		4.27		4		6.54	14	. 18		4.05	.01	.02	1	
AP-20985	3	107	12	125	.2	24	- 14	1177	4.21	15	5	ND	1	7	1	2	2	211	.55	.071	5		1.74		.41		1.40	.09	.27	1	
AP-20986	1	47	12	- 74	1.	17	21	1059	5.40	7	5	ND	1	57	1	2	2			.011	- 3		2.27	8	.31		3.24	.04	.02	1	
STD C	17	- 41	37	134	7.0	67	27	1018	3.94	- 41	14		22	48	17	16	20	62	.50	.017	34	58	.91	111	.09	21	1.73	.07	.13	13	

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## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H20 AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR NG BA TI B M AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: SOLUTION

DATE REC	FIU	50.	AUC	17 198	ם מ	ATE	DED	- CIENT	MAT	LED:	i	un.	15/	57	•	CCAN		Å.	Les	K1		<b>NI T</b>	OYE,	05			ъc	·	250V	FL
			PV#	13 17								- 9							- 7								261		,541	
					KU;	52BH	CHE	4 Lf	IBORI	ATOR	¥ 1-1	UNE	• 1-0	ERI	#8.	4_1		-314	2 #	87-3	257		Pag	eı		V	(0)			
SAMPLES	07 899	CU PPM	PB PPM	ZN FFN	AG PPN	NI PPR	CO PPR	nn Pph	FE Z	as Ppn	U PPN	AU PPM	TH PPN	SR PPM	CD FPM	SB FFN	BI PPM	V PPN	CA Z		LA PPH	CR PPR	я6 Х	VA PPN	11 2	B PPR	AL I	NA Z	K Z	N Ffr
AP 18252	1	88	27	129	.2	15	26	1361	7.57	2	5	ЯD	1	27	1	2	2	173	2.92	.071	4	38	2.86	4	.39	7	4.61	.02	.01	1
AP 18254	1	130	44	77	.5	68	26	404	4.45	10	5	NÐ	1	37	1	3	2	113	3.00	024	2	111	2.50	2	.50	3155	2.96	.01	.01	1
AP 18255	1	56	17	' 55	.2	- 14	- 14	550	3.90	4	5	ND	1	30	t	2	3	105	1.42	.070	- 4	53	1.43	29	.23		2.27	.07	.07	1
AP 18257	1		14	105	.1	40	29		8.02	4	5	NŬ	1	21	1	2	Ž		3.21			28		8	.54		2.96	.03	.01	1
AP 10250	ł	430	16	27	.!	37	19	2•2	5.80	4	5	ND	1	13	t	2	2	161	7.00	.034	3	64	.47	36	.57	21	2.94	.03	.01	1
AP 19259	1	199	15	109	.1	79	37	1100	7.32	H	6	KD	ŧ	24	1	2	2	166	2.90	.047	2	138	3.48	2	.78	7	4.3	.02	.01	1
AP 18260	1	42	72	145	.1	36	16		4.18	27	5	ND	1	4	t	2	2	94			2		1.3?	5	.26	9	1.76	.01	.03	1
AP 18261	1	114	21	98	.1	18	22	938	6.18	6	5	ND	1	16	1	2	2	131	2.84	.059	3	50	2.44	1	.35	5	3.15	.02	.01	1
AP 18262	1	52	12	124	.1	13	23	1007	6.64	5	5	ND	1	22	1	2	7	122	2.14	.074	- 4	- 34	2.57	t	.27	2	3.04	.02	.01	1
AP 18263	1	145	7	141	.1	61	37	1249	0.92	24	7	HD	1	49	1	· 2	2	243	4.79	.042	3	143	4.04	2	.10	2	5.04	.01	.01	t
AP 18264	18	467	14	42	1.1	128	22	416	5.40	15	5	ND	t	71	1	3	2	79	. 15	.088	4	262	2.11	2	.24	3	2.27	.01	.01	1
AP 18265	20	104	6	40	.2	- 94	10	ш	2.40	7	5	ND	2	7	1	2	3	38	.73	.125	9	65	.#1	38	.21	4	1.01	.04	.01	1
AP 18266	1	78	11	27	.1	30	15	227	2.49	16	5	ND	1	191	1	2	3	73	4.24	.037	2	57	.5?	5	.39		2.0*	.01	.01	I
AP 18267	6	72	17	17	.4	16	7		2.06	7	5	KD	1	10	1	2	3	73	.24		2	75	.51	145	18	- 4	.71	.03	.03	1
AP 18351	1	22	10	17	.1	16	5	193	1.24	6	5	ND)	4	17	1	2	2	26	1.99	.01	9	92	.61	17	.13	6	1.84	.04	.05	t
AP 18352		6	11	14	.1	4	3	163	1.00	3	5	ND	7	24	1	2	2	8	•5	.020	5	109	.23	187	.11	7	.62	-04	.17	1
AP 18354	2	1407	5	96	.3	11	13		2.71	6	5	ND	1	92	1	3	2	45	. 17	.004	2	133	1.25	3	.12	- 4	1.46	.01	.01	2
AP 18355	1	4	14	89	.1	1			4.69	9	5	ND	1	45	1	2	2	- 44		.096	3	27	1.05	25	.11		2.13	.03	.16	1
AP 18356	1	39	11	79	.1	12	28		7.16	2	5	ND	1	25	1	5	2	178		.039	2	25		20	.20		3.99	-09	.05	1
AP 18357	1	24	13	78	.1	17	23	945	á.16	12	5	ND	1	14	1	2	2	139	1.64	.042	2	50	2.43	7	.21	•	3.57	.06	.05	1
AP 18358	1	59	10	49	.1	15	11	515	3.39	8	5	мD	2	44	Ł	2	2	42	2.35	.049	4	53	1.53	189	.30	•	2.5	.02	.07	1
AP 18361	1	342	12	41	.1	21	16	303	3.31	5	5	ND	1	23	1	3	3	108	1.14	.0?5	7	26	.87	39	.17	3	1.30	.10	.05	1
AP 18362	5	65	13	192	.5	54	7	214	2.40	5	5	ND	1	21	1	2	- 4	59	1.15	.348	7	177	1.10	• <u>0</u>	.10	2	.96	.03	.02	t
AP 18363	2	73	13	215	.3	24	5		1.54	8	5	ND	1	13	2	2	2	26	- 62	.022	- 4	121	.33	49	.10	5	.62	.03	.01	1
AP 18364	1	7	8	7	.1	36	11	252	1.30	4	5	NÐ	2	209	1	2	5	44	2.95	.050	7	75	.47	6400	.17	2	2.63	.03	.04	1
AP 18365	1	16	11	46	.1	20	8	187	2.75	đ	5	ND	2	7	1	2	4	60	1.18	.038	7	104	.84	109	.18	4	1.57	.06	.01	ĩ
AP 18367	1	165	20	45	.1	31	12	264	2.84	3	5	ND	1	17	1	2	2		2.70	.050	3	83	1.17	56	.27	- 4	2.20	.06	.02	1
AP 18368	1	63	10	98	1.	48	32	477	6.85	6	5	ND	1	42	1	2	2	62	2.70	.059	4	71	3.02	34	.27	4	4.44	.32	.02	1
AP 18369	3	21	۰	26	.2	75	5	174	2.0	5	5	ND	2	7	1	3	5	54	.42	.010	7	210	.93	14*	-14	2	1.04	.02	.01	1
AP 18370	1	148	9	33	.1	36	12	210	2.46	2	5	ND	1	41	1	2	2	70	1.29	.044	3	40	1.06	34	.17	2	1.94	.16	.03	1
AP 18371	1	445	4	34	.1	46	14	258	2.60	14	5	ND	1	39	1	2	4	71	3.44	.029	3	90	1.22	36	.14	6	3.74	18	.04	1
AP 18372	1	372		24	.2	35	11	229	2.28	7	5	ND	1	65	1	2	2	<b>61</b>	2.75	.025	2	60	1.01	7	.22	6	2.55	.04	.01	i
AP 18373	1	141	н	85	.2	58	30	898	8.55	4	4	ND	1	14	1	2	2	238	3.31	.055	5	101	2.72	7	.48	2	2.03	.02	.02	1
AP 18374	1	217	15	71	.2	52	27		7.19	11	5	ND	1	57	1	2	3	176	3.33	.061	5		1.94	7	.72		2.22	.03	.01	1
AP 18375	1	173	15	35	.2	46	23	337	2.49	32	5	NÐ	1	87	1	2	4	10	3.04	.027	2	109	.8*	5	.51	4	2.07	.02	.01	I
AP 18374	1	93	10	45	.1	22	16	572	4.23	9	5	ND	I	15	I	2	2	92	1.91	.067	5	54	1.30	27	.32	1	2.42	.06	.05	t
AP 18377	I	106	12	34	.1	113	23		3.48	8	5	ND	i	11	1	3	4	80	2.00	.016	2		2.73	54	.21		3.30	.07	02	ī
STD C	19	63	41	132	7.5	68	2	941	3.95	42	23	B	40	52	18	17	20	58		.024	3	60	. 87	120	. 09		1.96	06	.14	12

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ROSSBACHER LABORATORY FROJELT-CERT #87421 FILE # 87-3237

SAMPLE	ND <b>7</b> 94	CU PPM	99 997	ZN PPN	A6 Pph	NI PPM	CO PPN	MN PPN	FE 2	AS PPR	U PPN	AU Pph	TH PPN	SR PPM	CD PPR	58 PP4	BI PPM	V PPM	CA Z		LA PPM	CŔ PPM	M6 2	JA PPR	11 2	9 Pfr	AL Z	NA X	K Z	W PPR	
									-										-	•			•		•		-	•	•		
AP 18378	1	197	- 14	176	.1	81	36	1431	8. fS	10	5	ЯÐ	3	13	1	2	2	133	2.39	.044	2	131	3.58	1	.47	2	4.13	.01	.01	1	
AP 18379	i	153	14	75	.1	72	39	792	8.24	6	5	NŰ	3	4	1	3	2	226	.34	.034	4	229		30	.30		3.80	.62	.04	1	
AP 18380	1	63	12	- 74	.1	45	1*	1188	5.73	13	5	MD	2	31	1	2	2	103	3.15	.064	2		2.42	18	.19		3.1*	.02	.04	t	
AP 10381	1	326	6	60	.1	25	22	328	4.27	3	5	ND	2	11	1	2	2	94		.088	3	33	1.32	26	.17		1.90	.07	.02	1	
AP 19382	2	23	10	9	-1	6	20	<b>9</b> 5	5.94	5	5	KŪ	3	12	1	5	2	15			2	40	.11	12	. 09	3		.05	.13	1	
AP 18383	t	84	12	44	.1		21	500	4.93	5	5	ND	2	31	1	2	2	167	1.59	.024	2	59	1.41	16	.21	2	2.5 <sup>ç</sup>	.04	.03	1	
AP 18384	1	77		41	.1	15	12	498	3.59	3	5	ND	3	15	1	2	2	67	1.49	.080	5	115		27	.14		2.44	.03	.02	t	
AP 19385	1	59	13	36	.1	13	13	414	3.41	3	5	ND	2	12	1	2	2	90	4.61	.014	4	51	1.02	7	.16		3.03	.03	.02	1	
AP 19384	1	121	13	45	.1	20	22	510	3.3*	- 4	5	ND	2	29	1	2	2	50	1.01	.070	3	70		7	.14		2.28	.02	.01	1	
AP 18387	1	32	10	59	.1	4	13	626	4.58	5	5	ND	3	35	1	2	2	64	3.32	.044	4	19	1.65	27	<b>.</b> 2•	6	2.32	.02	-09	1	
AP 18388	1	95	12	26	.1	109	30	283	3.78	7	5	ND	1	140	1	2	5	38	1.49	.012	2	262	1.44	22	.10	4	3.41	.30	.03	1	
AP 18389	1	84	7	33	.1	35	14	503	2.92	2	5	ND	2	11	1	2	•2	55	1.87	-024	2	76	2.36	15	.14	4	3.09	.02	.03	1	
AP 18390	1	40	16	42	.1	1	15	740	5.01	- 14	5	ND	2	17	1	2	3	80	1.48	.061	2	24	1.77	35	.01	2	2.58	.02	.09	t	
AP 18391	1	7	15	62	.1	2	11	917	6.20	5	5	ND	1	33	1	2	2	4*	1.66	.244	5	- 11	2.45	82	.10	2	3.24	.01	.05	1	
AP 18392	1	117	15	146	.3	85	3	1080	7.89	7	5	ND	1	24	1	2	2	144	4.22	. 039	2	147	3.39	143	<b>.</b> 48	2	4.47	.17	.07	1	
AP 18393	1	148	12	129	.1	66	34	1595	9.26	2	5	NÐ	3	11	1	2	2	245	1.27	.066	3	113	3.29	21	.52	2	4.34	.01	.03	2	
AP 18394	1	33	5	20	.1	3	2	290	1.22	4	5	ND	4	21	1	2	2	10	.28	.015	3	102	.28	45	.09	2	.65	.03	.10	1	
AP 18395	1	27	10	45	.1	42	17	427	2.98	3	5	ND	1	94	1	• 2	2	41	1.11	.025	2	102	1.57	4	.24	2	1.75	.01	10.	ŕ	
AP 18394	1	140	13	47	.1	35	16	473	3.84	6	5	ND	1	•	1	2	2	98	1.23	.044	2	74	1.59	5	.18		1.48	.02	.01	1	
AP 18397	1	19	13	37	<b>.</b> i	35	10	338	1.98	2	5	KD	1	31	1	2	3	40	1.83	.016	2	145	1.16	6	.07		1.30	.01	.02	I	
AP 18398	1	94	10	103	.1	54	34	1024	8.41	5	5	ND	2	30	1	2	2	212	2.12	.042	3	59	3.64	10	.31	2	4.07	.01	.04	1	
AP 10399	1	51	11	62	.1	47	25	<b>61</b> B	6.90	5	5	ND	1	35	1	4	2	175	.45	.035	2	116	2.40	11	.3*		2.68	.01	.04	1	
AP 18400	1,	23	13	59	.1	80	22	763	4.72	23	5	КD	1	44	1	2	2	75	4.44	.010	2	102	2.92	42	.27		3.07	.01	.09	1	
L C-SILTII	3	40	24	52	.2	17	27	527	3.24	7	5	ND	1	12	1	3	3	66	.17	.050	4	112	.15	32	.08		1.91	.04	.03	3.	
L C-SILTO2	1	40	17	82	-1	16	16	1232	3.21	9	5	ND	1	23	1	3	4	58	.74	.055	4	100	.80	60	.11		2.52	.02	.04	2	
L C-SILT#3	1	36	16	71	.1	25	14	846	3.40	8	5	₩D	2	23	1	2	4	48	.55	.038	3	290	1.20	53	. 16	2	2.17	.03	.05	2	
STO C	17	60	41	132	7.4	69	29	755	3.95	44	17	8	39	52	1	18	22	59	.48	.087	3*	<b>61</b>	. 80	177	.09		1.86	.05	.14	12	

852 E. HASTINGS ST. VANCOUVER B.C. VAA 1R6 PHONE 253-3158 DATA LINE 251-1011

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## GEOCHEMICAL ICP ANALYSIS

.500 GRAN SAMPLE IS DIGESTED WITH 3HL 3-1-2 HCL-HK03-H20 AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH MATER. THIS LEACH IS PARTIAL FOR NN FE CA P LA CR NG DA TI B N AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPH. - SAMPLE TYPE: SOLUTION

DATE RECE	IVEI	Dı	AUG 1	5 1987	1	DATE	RE	POR	t Ma	ILED	):	liug	217	1/6-	7	ASSA	YER	D.	Å	epez.	.DE	AN .	TOYE	, CE	RTI	FIE	ов.	c. 4	ISSA	YER
					ROS	SSBA	СНЕ	R L/	4BOR	ATOR	Y PI	OJE	LT-1	CEFT	#8	7436	•	File	• #	87~3	310		Page	e 1	ι	12	61			
SAMPLE	NO PPN	CU PPM	P3 PPK	ZN PPK	AG PPN	NI PPM	CO PPN	MN PPM	FE I	AS PPN	U PPM	AU PPM	TH PFN	SR Ppn	CD PPM	SD PPN	ÐI PPK	V PPN	CA Z	P Z	LA PPN	CR PPH	KG Z	BA PPN	TI I	8 PPN	AL I	NA Z	K 1	N PPN
AP 18268	1	1856	4	1	.1	5	ł	78	.56	14	5	ND	1	8	1	2	2	2	.52	.004	2	264	<b>.</b> 02	207	.01	15	.11	.01	.06	2
AP 18267	1	175	8	10	.1	5	2	180	. 94	53	5	ND	3	12	1	2	Ź	5	1.95	.012	2	230	.14	74	.02	2	.40	. 02	.12	1
AP 18270	2	4759	, 3	- 4	.2	5	2	120	1.26	38	5	ND	1	5	1	2	2	5	.13	.007	2	225	.12	18	.02	16	.25	.02	.07	4
AP 18271	3 1	12578 🗸	10	53	.1	17		895	3.57	•	5	KD	1	5	1	2	2	45	.12	.007	2	229	1.27	32	.07	17	1.48	.03	.07	10
AP 18272	2	2751	9	87	.5	25	7	342	3.39	55	5	KD	l	9	1	2	2	35	.44	.01 <b>4</b>	2	200	.75	41	.30	tá	1.17	.01	.08	2
AP 18273	5	40	27	116	.1	38	11	397	2.78	17	5	ND	I	6	1	2	3	33	.63	.024	3	271	.7	36	.14	23	1.15	.01	.10	r
AP 18274	- 4	90	13	6B	.1	7	12	539	4.21	29	5	HD	1	37	1	- 2	2	145	12.13	.036	2	63	.•7	4	.22	21	8.77	.03	.03	1
AP 19274	1	22	29	51	.1	- 14	5	277	3.20	•	5	ND	1	6	1	2	2	45	.2*	.005	3	130	. 94	25	.30	26	1.38	.04	.20	1
AP 18277	20	33	13	110	.1	37	11	25*	3.11	5	5	ND	1	24	1	2	2	91	1.12	.021	2	109	1.46	3	.28	4	1.73	.08	.05	1
AP 18301	1	6207	15	133	.1	45	26	973	á.1á	9	5	KD	1	- 14	1	2	2	129	1.76		3	50	1.99	2	.47		2.19	.03	.01	5
AP 18302	11	12514 🗸	1 6	1	.9	5	2	1174	1.78	2	5	ND	1	17	1	2	2	35	22.98	.001	2	15	.15	1	.05	14	.24	.01	.01	9
AP 18303	1	45	10	60	.i	5	1	740	3.05	9	5	ND	Í	40	1	2	2	47	.82	.050	5	60	.96	13	.27	21	1.48	.05	.07	1
AP 18304	1	41	12	71	.1	11	17	1014	5.42	•	5	ND	1	20	Ē	2	2	142	2.35		4	29	1.86	32	.31		2.56	.04	.14	1
AP 18305	i	138	18	90	.1	58	30	1146	7.27	7	5	ND	i	130	1	2	2		7.19	.044	Å	99	3.25	4	.95		3.84	.01	.01	1
AP 18306	1	12	5	82	.1	ī	1		1.24	9	5	ND	ī	5	1	2	2	7	.88		6	53	.24	19	.0	23		.05	-26	ī
AP 18307	I	28	6	23	1.	11	5	263	1.26	23	5	ND	1	t	1	2	3	29	.12	.006	2	241	.29	4	.12	52	.46	.01	.03	3
AP 18275	1	45	14	65	.1	,	12			27	5	ND	,	20	1	- 2	ž		1.31	.040	2	90	.11	42	,17		2.25	.03	.13	ī
STD C	19	12	40	133	7.0	72	2	1034		46	22	8	43	56	17	15	21	<b>6</b> 4	.45	.093	42	65	.81	182	.10		1.88	.07	.14	12

- ASSAY REQUIRED FOR CORRECT RESULT -

													• • • • •										•							
SAMPLE	NO PPix	CU PPN	PB Pfn	ZN PPK	AG P <b>p</b> h	NI PPM	CO PPM	KN PPN	FE 1	AS P <b>p</b> n	U PPM	AU PPH	TH PPN	SR PPH	CD PPM	SB PPN	DI PPK	V PPN	CA Z		LA PPh	CR PPN	KG Y	8A PPK	11 2	B PPN	AL X	NA Z	K Z	N PPN
S LON 000	I	42	7	34	.2	,	2	88	1.04	7	7	ND	1	110	t	3	2	23	.51	.087	2	14	.57		.06	47	.70	.92	.08	1
S LON 100	1	78	13	- 44	.1	17			1.55	2	5	ND	ī	12	i	z	2	236	.22		5		.33	23	.67		4.94	.01	.02	i
S LON 150	1	75	13	29	.1	11			4.28	7	5	ND	1	15	1	- <u>2</u>	2	171	.20		, i	12	.20	30	.54		3.17	.01	.03	1
S LON 200	ī	21	23	23	.1	6			11.95	3	5	ND	2	12	ī	2	2	304		.048		73	.14	11	.67		1.88	10.	.03	Î
S LON 250	1	32	14	34	.2	12	7		1.74	•	5	ND	1	15	1	2	2	228	.17		7	RO	.31	25	.45		2.18	.01	.04	i
S LON 350	1	31	19	30	.1	4	7	279	8.18	6	5	ND	1	17	1	2	2	236	.23	.044	3	39	.23	25	.43	7	2.31	.01	.04	1
S LON 400	1	15	17	27	.1	3	5	121	4.42	7	5	NÐ	1	13	1	3	2	251	.14	.033	3	26	.04	16	.47	5	1.34	.01	.02	1
S LON 450	1	53	17	37	.1	10	10	518	10.10	2	5	ND	2	50	1	3	2	179	. 18	.051	5	78	.32	15	.51	2	5.74	.01	.03	2
S LON 500	1	35	17	51	.1	14	14	827	4.44	10	5	ND	1	15	1	5	2	<b>?</b> ¶	.25	.060	6	34	.39	33	.17	3	2.57	.01	.04	1
S LON 550	I	17	9	20	.2	5	2	67	-90	5	5	MD	1	,	1	2	.2	72	.18	.049	2	11	.09	7	.18	5	.46	.01	.05	1
S LON 400	ĩ	17	22	46	.1	13		447	2.58	8	5	ND	t	23	1	2	2	<b>9</b> 5	.29	.0*8	3	32	.33	16	.24	4	1.52	.02	.05	1
S LON 450	1	33	19	42	.2	12	10	414	4.49	9	5	ND	1	22	1	5	2	184	.40	.056	4	40	.59	23	.50	5	1.83	.01	.05	1
L TN-1	1	252	36	117	.3	33	19	2145	3.33	12	5	ND	2	50	1	2	2	105	2.39	.040	4	117	.12	25	.21		2.03	.03	.05	1
STD C	19	63	40	133	7.0	72	29	1034	4.02	- 44	22		43	56	17	15	21	- 44	.45	.093	42	65	.00	192	.10		1.88	.07	.14	12

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ROSEBACHER LABORATORY PROJECT-CERT #87436 FILE # 87-3310

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

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GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH JHL 3-1-2 HCL-HH03-H20 AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MY FE CA P LA CR HG BA TI D W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: SOLUTION 

DATE RECE	EIVE	Dr	AUS 1	<b>7 198</b> 7					t Ma	ILED	T	Ûщ	320	187		ASSA	YER	.D	de	HJ	DE	AN T	TOYE	, CE	RTI	FIEI	D B.	c. 4	SSA	YER
					ROS	SBA	CHEF	R LA	ABORA	ATOR									- 1	87-3			Page				26			
SAMPLEO	nd Kta	CU PPN	PB PPN	ZN PPN	AG PPN	NI PPN	CO PPN	nn PPM	FE 1	AS PPN	U PPN	AU Pph	TH PPM	SR PPN	CD PPM	SB PPN	BH PPN	V PPN	CA Z	P X	LA PPH	CR PPN	86 Z	BA PPN	TI X	8 1991	AL Z	HA X	K X	N PPN
R 18256 R 18278 R 19280 R 19308 R 19309	1 1 1 1 2	8372 54 104	6 5 16 8	34 186 47 50 33	.1 2.0 .1 .1 .1	44 75 13 26 5	11 40 14 13 4	1225 777 371	2.48 11.24 4.87 3.07 2.65	3 2 5 4 5	5 5 5 5 5	ND ND ND ND ND	[ t 1 1	54 22 18 15 17	1 2 1 1 1	2 2 2 2 2 2	2 2 2 2 2 2	203 88 74	2.11 2.04 .94 1.6 3.01	.035 .071 .073 .041 .083	2 3 2 2 2	59 76 41 53 76		51 6 32 3 31	.15 .42 .21 .49 .07	2 2	3.25 5.77 2.44 1.34 .79	.25 .02 .07 .07 .02	.03 .03 .06 .02 .17	1 2 1 1
R 18310 R 18311 R 18312 R 18313 R 18313 R 18314	1 1 1 2 1	15 32 34	12 3 5 14 3	44 22 24 77 21	.2 .1 .1 .2 .1	17 6 5 8 6	17 4 4 14 3	551 516	5.08 1.55 2.13 4.91 1.56	74 48 14 51 3	5 5 5 5 5	ND ND ND ND	1 1 1 1	43 20 30 4 42	1 1 1 1	2 3 2 2 2	2 2 2 2 2	4 9 52	2.19 .43	.088 .037 .027 .073 .056	3 2 4 3 4	43 188 120 72 142	.73 .09 .39 1.00 .25	57 21 24 24 39	.01 .01 .01 .16 .01	7 4 4 5	.71 .24 .49 1.49 .47	.02 .03 .03 .04 .03	.23 .07 .10 .16 .12	1 1 1 1
R 19315 R 19314 R 19317 R 19318 R 19319	1 1 2 2 1	177 842 29	9 17 5461 87 286	44 141 4224 193 37	.2 .1 2.3 .3 .4	14 52 5 3 8		1314 106 370	2.24 7.39 .40 1.70 2.00	4 12 5 20 10	5 5 5 5 5	ND ND ND ND	1 1 1 1	61 27 5 13 6	I 1 107 6 1	3 2 3 3	2 2 2 2 2	150 2 5	.57 1.72	.042	3 2 3 2	37 73 167 77 153	.87 3.21 .03 .31 .37	17 17 8 35 19	.13 .31 .01 .01		1.19 3.71 .08 .63 .58	.01 .01 .01 .03 .02	.08 .07 .04 .17 .08	3 1 5 1 1
R 18320 R 18321 R 18354 R 18401 R 18402	1 1 1 1	8413 15 49	8 14 10 11	31 989 49 49 51	.1 7.2 .2 .1 .2	3 47 38 42 2	7 50 5 22 5		10.77 1.02 4.43	17 11 2 5 5	5 5 8 5 5	ND ND ND ND ND	i 1 1 1	67 66 138 34 201	1 22 1 1	2 2 2 3 2	2 2 2 2 3	114 34 78	2.14 2.04	.055 .019 .045 .042 .043	2 2 5 3 3	72 43 03 50 42	.37 .83 .53 1.91 .49	37 3 5015 10 45	.01 .14 .11 .34 .05	2 2	.35 1.51 1.92 2.10 1.00	.03 .02 .03 .05 .01	.01 .02 .01 .12	1 1 1 2
R 18403 R 18404 R 18405 R 18405 R 18405 R 18407	1 1 1 1	2746	5 10 12 10 ¶	21 100 40 103 44	.2 .1 .1 .7 .1	12 51 31 46 11	6 24 14 26 14	849 344 462	1.03 4.59 2.61 5.70 4.37	2 9 7 21 3	5 5 5 5 5	ND ND ND ND	1 1 1 1 1	15 12 17 27 22	1 1 1 1 1	13 2 2 2 3	5 2 2 2 2	109 41	2.81 1.30	.057	2 4 2 4 2	84 43	.41 2.07 1.01 2.15 1.58	2 6 3 4 20	.04 3 .37 .19 .53 .17	55 79 45	.48 2.58 1.34 2.55 1.70	.01 .05 .07 .05 .07	.01 .01 .01 .01	2 1 1 1
R 18408 R 18409 R 19410 R 19411 R 18412	l 1 11 1	24 81 9 7 70	10 10 9 14	57 64 101 12 67	.1 .1 .1 .1 .2	3 7 1 7 27	8 14 10 12	935 82	3.11 4.81 5.02 2.95 3.47	2 5 4 10 4	5 5 5 5 5	ND ND ND ND ND	1 I I I	14 23 15 1 2	I 1 1 1	2 2 3 2 2	2 2 2 2 2 2	102	.98 1.44 .07	.056 .073 .154 .019 .016	3 5 4 2 2	18	1.00 1.34 1.63 .10 1.24	12 42 37 18 7	.18 .21 .13 .07 .12	23 17 25	1.82 2.41 2.55 .27 1.41	.04 .10 .05 .01 .03	.03 .07 .05 .11 .04	1 1 1 1
R 18413 R 18414 R 18415 R 18415 R 18416 R 18417	1 1 1 1	82 642 18 646 62	48 6 3 12 10	121 72 20 134 48	.5 .4 .1 .4 .1	7 25 1 11 1	23 22 1 18 26	994 423 787 1031 514	3.59 .76 7,49	30 36 2 2 2 2	5 5 5 5 5	ND ND ND ND ND	1 1 1 1 1	3 15 91 9	1 1 1 1	2 2 2 2 2 2	2 2 3 2 2	2 98	1.67 8.47 1.19	.075 .023 .014 .099 .024	4 2 3 2	48 57 32	1.36 .94 .11 2.05 1.36	14 15 42 22 27	.27 .10 .01 .01	14 13 9	2.28 1.56 .31 2.93 1.87	.02 .07 .01 .03 .04	.22 .06 .13 .11 .07	1 1 1 1
R 18418 R 18419 R 18420 R 18420 R 18421 STD C	1 1 1 1	7 61 7 65 57	5 9 5 11 40	36 93 32 54 132	.1 .1 .1 .1 7.1	2 6 3 7	3 17 3 13 24	953 236 699	1.50 5.31 1.25 5.93 4.01	2 13 2 4 40	5 5 5 5 21	ND ND ND ND ND 7	3 I 1 1 37	18 26 20 10 49	1 1 1 1	2 2 2 2 17	2 2 2 2 20	10 70 3 162 55	1.43 .54 .35	.020 .065 .020 .043 .087	2 3 2 3 3	58	.52 2.36 .48 1.23 .80	21 7 12 13 173	.11 .18 .05 .32 .08	5 5	.78 3.38 .74 2.05 1.83	.04 .07 .05 .05 .08	.07 .02 .02 .01 .13	1 1 1 13
	<u>^ /</u>		<u>a</u> =													<u> </u>			<b></b>											

							ROS	SBA	CHER	LAB	ORA'	fory	PF(	OJEC	T-C	EFT	#87	447	FI	LE #	87	-742	26								
SAKPLEA	NO PPN	CU PPH	P9 PPH	ZH PPH	A5 PPN	XI PPH	CO PPN	NN PPK	FE I	AS PPN	U PPN	AU P <b>p</b> k	TH PPH	SR PPM	CD PPM	S <b>B</b> PPN	BI PPN	V PPN	CA Z	P I	LA PPR	CR PPN	KG Z	BA PPH	TI I	8 99%	AL I	NA Z	K I	W PPM	
R 18422	1	5	4	27	.1	3	2	337	1.35	4	5	HD	5	24	1	2	2	11	1.18	.029	5	n	. 40	35	.11	5	1.08	.04	.11	I	
R 19423	1	- 65	12	47	. [		12	702	3.71	5	5	ND	5	15	1	2	2	19	1.57	.070		40	1.47	20	.17	3	2.45	.06	AŬ 6	3	
R 18424	1	144	5	104	.1	19	20	580	5.51	2	5	КD	1	22	1	2	2	89	.3	.007	2	26	1.19	77	30	8	2.55	.08	.22	1	
R 18425	1	55	12	£13	.1	12	21	1379	8.39	2	5	ND	Ī	189	Ī	2	2	142		.044	2		1.54	67	.17		7.31	.51	.09	i	
R 18426	2	101	4	88	.3	80	24	941	6.56	8	5	ND	2	37	1	2	2				2		4.26	7	.25		4,91	.05	.05	1	
R 18427	2	70	,	25	.1	20	16	214	4.50	4	5	ND	I	49	t	2	2	82	1.1	.034	2	57	1.14	35	.20	2	2.79	.17	. 19	ı	
R 18428	1	57	5	21	.1	- 4	- 4	205	2.47	5	8	ND	1	4	1	2	2	51	.3	.033	3	58	.91	366	.22	2	.94	.04	.03	1	
R 18427	1	215	9	52	.6	32	16	242	3.94	7	5	ND	1	5	1	- 14	2	124	1.50	.074	3	36	1.00	16	.26		1.94	.06	.02	i	
R 18430	1	384	10	33	.2	90	27	147	4.20	7	5	ND	1	28	1	2	2	55	1.21	.085	2	63	.94	64	.23	2	1.72	.15	.02	2	
R 18431	5	46	13	95	.1	14	10	<b>778</b>	5.47	4	5	ND	3	á <b>t</b>	1	2	2	71		.044	2		1.24	149	.30	_	2.64	.08		t	
R 18432	1	15	11	23	.3	5	5	2414	1.70	4	13	ND	1	412	1	2	5	13	34.46	.017	7	15	.57	19	.01	3	.76	.01	.07	4	
STD C	18	57	42	131	7.0	68	26	977	3.99	40	29	7	3	47	18	17	2)	55	.40	.087	35	59	.88	174	.08	37	1.82	.08	.12	12	

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SAMPLE	NO PPH	EU Pfn	-				00 891	RN PPN	FE	AS PPH		-			CD PPN	SD PPN	B1 PPN	-	CA 7	P 7	LA PPN	CR PPN	MG 7	SA PPN		9 PP5		NA T	r	W PPn	
			••••			,	• • • •		-						110				•	-		1.11	^	110	-		•	•	*		
AP 19251	1	47	8	51	.1	2	15	543	4.01	4	5	NÐ	2	15	ſ	2	2	112	1.78	.040	3	37	1.16	29	.24	3	2.49	.03	.04	1	
AP 10253	L	39	23	89	.7	38	22	438	5.14	3	5	NŬ	1	7	1	2	2	103	.84	.042	4	40	1.58	4	.44	2	1.71	.04	.01	t	
AP 18256 B	5 4	42	18	55	.3	41	5		1.79	Q	5	ND	2	7	Ī	2	2	22		.029	4	110	.25	28	-	-	39	.00	.01	i	
AP 18353	1	68	12	63	.1	20	23	768	5.43	3	5	NŬ	2	33	1	2	2	142	2.43	.033	3	59	3.24	43	.26	3	3.47	.05	.14	1	
AP 18359	L	46	10	74	.1	5	11	501	4.16	6	5	КD	3	6	1	2	2	71		.035	2		1.92	-	.23	-	2.37	.02		1	
AP 18360	2	10	19	9		2	1	76	. 49	5	5	NÐ	1	5	1	4	2	8	1.28	.095	2	183	.15	9	.02	6	.97	.03	.ÚI	1	
AP 10366	1	278	37	?3	.3	12	10	241	2.66	5	5	NÛ	1	16	1	2		11	1.53	.071	4	17	.65	157	.21	10	1.49	.08	.07	1	

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

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H20 AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 NL WITH WATER. THIS LEACH IS PARTIAL FOR NN FE CA P LA CR NG BA TI D N AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPN. - SAMPLE TYPE: SOLUTION

DATE RECE	EIVEI	) <b>:</b>	AUS 12	1987	DA	TEI	REPC	BT I	MAIL	ED:	U	μġ	13/8	57	AS	SAY	ΞŔ	Al-	<b>4</b> : f 4	7	DEAN	70	YE.	CERT	TIFI	EDB	9.C.	AS	SAYE	R
					8059	SBAC	HER	LAE	ORAI	ORY	ዮዞር	JJEC	T-CI	LF T	#874	414	F	le	<b>#</b> 8	7-31	ч <u>г</u>	٢	'aqe	1	$\vee$	20	57			
SAMPLE	кO	CU	P <b>R</b>	2n	AG	NI	CO	MR		AS	U	AU	TH	SR	CD	SB	BI	¥	EA	₽	LA	CR	n6	<b>B</b> A	τι	1	AL	NÂ	K	N
	<b>P</b> P <b>R</b>	PPN	PPN	PPH	PPK	66¥	PPN	FPN	2	29K	PPK	PPN	<del>f</del> fn	PPN	FPN	PPK -	PPN	PPM	2	z	PP#	PPR	2	PPR	ĩ	PPN	r	2	ĩ	PP <b>R</b>
S LON 700E	1	57	14	55	.2	11	8		5.76	11	5	ND	1	21	1	2	• 2	127	. 29	.054	3	36	-	15	.39		2.28	.01	.03	2
S LON BOOE	1	135	- 14	72	.1	35	25	1312	6.45	2	5	ND	1	22	1	2	2	169	.75	.050	5		1.35	15	.47		3.65	.01	.03	1
S LON 850E	1	141	23	82	.1	- 34	26	1426	4.57	3	5	ND	1	21	1	2	2	174	1.08	.040	6	- 64	1.40	- 17	.49	5	3.64	.01	.04	2
S LON 900E	1	171	21	100	.1	35	29	2571	6.47	7	5	ND	ŧ	30	i	2	2	167	.88	.070	7	71	1.37	22	.41	7	3.62	.01	.03	2
S LON 950E	1	80	13	59	.3	16	15	723	8.5t	2	5	ND	1	23	1	2	2 2	214	.43	.070	4	59	.51	n	.51	8	2.94	10.	.04	ī
S LON 1000E	t	119	17	62	.1	27	23	884	8.88	2	5	ND	1	10	1.	. 2	2	275	.48	.052	5	83	.91	•	.86	2	5.55	.01	.02	4
S LON 1050E	1	115	15	56	.1	27	23	885	8.62	2	5	ND	1		1	2	2	271	.45	.050	5	E1	. 99	9	.86	2	5.27	.01	.02	2
S LON 1100E	L	117	15	75	-1	30	24	1628	6.55	2	5	KD	1	15	1	2	2	176	.75	.058	5	- 64	1.06	17	.47	5	3.54	.01	.04	2
S LON 1150E	3	185	6	73	.1	22	- 34	2078	7.73	2	5	ND	1		1	2	2	156	.23	.092	4	- 74	.57	16	.39	6	4.92	.01	.02	4
S LON 1250E	1	194	17	80	.1	36	25	1202	5.49	5	5	ND	1	15	1	2	2	126	.86	.045	4	59	1.52	15	.37	2	2.99	.02	.03	i
S LON 1300E	1	109	20	47	.1	15	15	510	8.13	4	5	ND	t	10	1	2	2	225	.38	.053	10	74	.59	13	.44	3	3.67	.01	.03	2
S LON 1350E	1	55	26	35	.2	12	10	415	7.88	7	5	ND	1	- 14	1	2	2	224	.36	140.	7	53	.38	53	.64	3	1.84	.01	.05	1
S LON 1400E	1	214	12	90	.1	43	23	3528	5.76	2	5	ND	1	16	1	2	2	170	1.30	.051	5	48	1.21	29	.50	9	3.82	.01	.02	1
S LON 1450E	1	120	17	86	.2	16	14	1514	3.20	8	5	ND	1	29	1	2	2	82	2.55	.081	5	37	.59	24	.17	11	1.73	.01	.05	1
S LON 1500E	2	5	2	45	.1	t	I	14	.08	4	5	ND	1	10	1	2	2	3	.69	.047	2	1	.05	4	.01	3	.06	.02	.02	t
S LON 1550E	1	26	9	53	.4	3	2	213	.72	2	5	KD	1	24	1	2	2	32	1.29	.062	4	•	.13	15	.08	2	.28	.02	.06	1
S LON 1650E	1	168	16	- 74	.1	22	19	1760	4.18	7	5	ND	1	24	L	2	5	111		.070	8	- 41	. 86	16	.27	- 4	2.14	.01	.04	1
S LON 1700E	1	36	17	31	.1	- 4	7	159	7.48	7	5	ND	1	13	1	2	2	264	.30	.033	2	45	.16	13	. 61		1.35	.01	.03	1
S LON 1750E	1	39	17	27	.1	7	8	304	6.77	- 4	5	ND	1	9	t	3	2	224	.32	.034	2	35	.32	12	.51	2	1.57	.01	.02	1
S LON 1100E	1	44	15	44	-1	10	11	659	4.96	7	5	ND	1	16	1	2	2	174	.77	.042	5	22	.25	16	.37	4	1.44	.01	-03	1
S LON 1850E	1	24	6	40	.2	4	4		2.21	7	5	NÐ	I	14	1	2	2	75	. 37	.038	2	24	.16	11	.20	4	.71	.01	-04	t
S LON 1900E	1	98	18	57	.1	15	23	154B	2.84	5	5	ND	1	2	1	2	2	75	2.75	.065	7	55	.23	19	.20	11	2.46	.01	.05	1
S LON 1950E	1	169	17	85	.1	37	29	1103		3	5	ND	2	17	1	2	2	211	. 97	.030	- 4	105	1.16	- 14	.49		4.26	.01	.03	2
S LON 2000E	1	56	17	65	.2	1∎	11	397	3.14	5	5	ND	1	13	ĩ	3	3	87	. 66	.038	2	35	. 82	10	.24		1.75	.01	-0é	1
S LON 2050E	1	57	11	74	.2	15	9	291	3.20	4	5	ND	1	14	1	2	2	70	.60	.063	2	36	.54	11	.25	2	1.49	.01	.05	1
S LON 2100E	1	59	14	91	.3	10	7		. 71	4	5	KD	1	25	1	2	2	18	2.81	.087	5	32	.10	9	.04		1.10	.02	.03	1
SID C	20	61	42	132	7.4	72	29	1024	3.97	41	18	8	40	54	19	17	21	<b>61</b>	.47	.092	40	57	.88	181	.09	35	1.84	.07	-14	13

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DATA LINE 251-1011 PHONE 253-3158 852 E. HABTINGS ST. VANCOUVER B.C. V6A 1R6

### ANALYSIS GEOCHEMICAL ICP

## .500 GRAM SAMPLE IS DISESTED WITH JHL 3-1-2 HCL-HN03-H20 AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR NO FE CA P LA CR NS DA TI D N AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IG 3 PPM. - SAMPLE TYPE: SOLUTION

DATE REPORT MAILED JUNE 15/87 ASSAYER. AL MER TOYE, CERTIFIED B.C. ASSAYER JUNE 13 1987 DATE RECEIVED: V261 ROSSBACHER LABORATORY PROJECT - 87236 File # 87-1746 Page 1 × ¥ CA CR 86 **J**A п AL. SAMPLES NC. ĊŬ 13 ZN AG NI CO MN. FE AS U AU TH SR CD SÌ н v 1 LA Z 228 PPN 2216 PPil 225 1 I 201 225 7 228 X 72H 1 I PPil PPK PPH PPX. PPH PEX X PPH PPH 725 P26 PPN PPH PPH. .07 3 48 .25 2 2.44 10. 1453 4.43 34 3 2 111 . 12 .031 172 .91 L-HERT-I 41 29 74 .7 25 21 7 5 1 1.40 .077 114 2.26 25 .41 4 2.84 .05 .04 2 45 2 2 140 4 177 24 24 58 21 792 5.58 12 5 NÐ 1 1 L-HERB-2 1 .1 17 .17 .024 94 1.05 12 .29 6 1.73 .03 -04 1 ND 21 2 2 2 L-HERB-3 .256M 1 109 17 47 .1 30 14 401 3.42 5 5 .03 .04 1 787 5.85 5 ND 14 2 2 144 .98 .043 5 112 1.17 31 .31 2 3.22 167 36 25 10 1 1 L-HER8-4 1 34 67 .1 6 2.1 .04 .04 2 1.37 .031 128 .91 21 . 24 2 119 4 L-HERD-5 119 29 70 28 17 808 4.62 10 5 ND 1 20 2 3 .1 .03 .05 144 1.17 .054 107 2.15 25 .35 4 3.04 1 22 . L-HERB-4 1 157 36 107 .1 48 26 1334 6.42 21 5 ND 2 2 13 3 2.17 .04 .03 1 99 1.31 .45 35 473 5.34 10 5 ND 20 2 2 101 1.48 .039 4 L-HERB-7 1 103 27 67 .1 1 1 1 2 5 171 1.57 .046 4 95 1.34 16 .49 2 2.51 .05 .04 151 29 65 33 17 877 4.13 KD 1 20 1 2 2 L-HERB-B 5 .1 1 8 2.73 .05 .04 1 218 1.89 -037 112 1.43 15 .47 44 114 4.05 5 НÐ 1 27 1 2 2 4 L-HERD-9 1 73 32 10 .1 20 7 .12 22 27 27 .3 10 10 304 5.92 5 N 2 44 2 241 . 19 .066 4 164 .46 35 .17 2 1.8E .07 1 1-HER#-10 17 2 27 .15 3 1.42 .05 .06 L-HERB-11 17 19 36 12 217 6.49 34 2 221 .44 .035 3 169 .37 4 -1 1 5 MA 1 1 -3 113 .57 .039 172 .56 36 .22 2 2.07 .04 .06 2 ND 2 4 L-HERD-12 17 25 25 51 .3 17 16 457 4.10 4 5 1 34 1 3 5 .18 8 3.18 .09 36 5 ХŪ 1 2 3 84 1.38 .095 8 157 .63 102 .07 L-HERB-13 4 37 90 .1 17 32 3133 4.13 15 43 1 1 ND 56 2 2 157 1.40 .052 5 141 1.12 21 .50 8 2.67 .06 .06 1 112 25 71 40 20 740 5.04 9 S 1 1 1-KER0-14 -1 27 .34 3 2.58 .06 .04 4 2 119 .96 .054 5 136 .85 L-HERD-15 45 28 56 .3 21 10 1332 4.55 9 S ND 1 38 1 2 1 .04 . 71 20 .49 6 2.91 .04 1 L-HERD-16 138 1.00 .058 97 -74 24 50 21 14 804 4.34 M 34 2 2 -5 1 -1 4 -5 1 12 2.73 .06 .13 4 111 1.40 48 .28 1 L-HERD-17 74 29 77 27 19 117 5.42 7 5 NŰ 33 2 2 121 1.02 .044 1 .1 42 - 26 15 2.51 .05 .11 1 2 114 .94 .040 105 1.49 L-KERB-19 67 20 90 -1 26 18 919 4.97 5 5 MD 1 31 1 2 1 107 .83 .063 4 144 1.24 33 .27 7 2.53 .06 - 07 1 22 5 KD 34 2 2 L-HERB-19 1 51 22 73 .1 21 1406 4.47 4 1 1 44 .04 .08 31 23 ND 34 2 3 105 . 17 .041 6 78 1.23 - 26 7 3.31 1 L-HERD-20 72 94 22 1944 4.13 5 1 1 -1 2 2.67 .05 .07 L-HERD-21 100 25 79 35 20 1117 4.75 7 40 2 2 123 1.22 .052 4 125 1.48 36 . 37 1 -1 5 MD 1 1 1 .99 .056 73 .24 6 3.34 .05 .11 2 1967 5 Ю 40 2 2 108 4 154 1.18 41 27 96 21 21 1 1 L-HERD-22 1 .1 4.15 5 .45 1.44 .046 37 6 2.56 .04 .05 1 ND 47 2 2 139 5 147 1.47 L-HERD-23 1 77 23 48 .1 33 15 804 4.62 7 5 1 1 100 .77 .030 106 1.10 32 .31 7 2.12 .05 .05 1 L-HERB-24 41 25 71 23 13 670 3.71 7 5 ND 1 44 1 2 2 4 .1 1 27 .34 2 2.18 .05 .04 1 106 1.05 .028 125 1.07 22 XD 2 4 L-HER8-25 1 46 17 61 .1 11 537 3.47 5 5 49 2 .05 31 .41 5 2.41 .05 1 118 1.14 .034 111 1.20 L-HERB-26 41 27 62 28 13 510 4.09 44 2 2 1 .1 5 -1 25 1 2.43 .05 .04 2 524 4.31 2 128 1.07 .041 115 1.17 .43 L-HER8-27 1 43 22 51 .1 25 13 6 5 XD 1 43 1 2 4 KD 37 2 2 145 1.04 .057 5 112 1.24 28 .45 9 3.01 .04 .05 t 32 27 8 5 1 1 L-KERB-28 1 86 51 .1 16 619 4.76 39 .27 1 2.32 .04 -04 1 5 112 1.17 44 17 14 744 3.88 5 5 XD 1 47 1 2 4 - 97 .86 .035 L-HER#-90 1 17 41 .1 6 1.62 .07 .07 3 17 41 .2 11 444 2.17 2 5 KD 1 45 1 2 3 11 .74 .015 4 156 . 94 43 .31 L-HERB-91 12 3 .03 35 .24 9 1.92 .04 1 35 511 3.21 48 30 2 2 86 1.38 .031 З 155 . 94 L-HER0-92 4 48 15 122 .1 -11 -5 ЯD 45 1.17 .051 113 1.43 15 .09 7 2.47 .05 .08 1 27 22 829 3.54 7 5 MD 34 2 5 4 L-HERB-93 40 107 .2 15 1 1 1 .10 125 .17 17 .16 8 2.66 .05 1 ND 35 z 2 #2 1.34 .04B 5 L-HERD-94 4 55 34 80 .1 20 18 853 5.28 17 5 1 1 864 4.66 13 KD 30 2 2 108 1.57 .056 4 120 1.54 73 .24 14 2.45 .0 .07 1 L-HERD-95 84 17 10 .2 37 20 5 1 1 1 .05 .07 12 .26 10 2.12 1 15 2 121 1.76 .055 7 133 1.40 L-HERB-96 90 20 85 38 20 789 5.09 5 XD 34 2 1 .1 - 1 2 2.74 .04 45 .23 -05 1 L-HER8-97 74 80 32 15 480 3.88 17 35 3 100 1.25 .043 5 121 1.11 1 13 .3 5 ND 1 2 1 .05 .06 117 1.60 .000 124 1.99 177 .20 12 3.59 1 L-HERD-98 7 77 21 153 .2 50 21 1009 4.28 77 5 ND 1 36 1 2 2 8 .93 .020 194 1.00 58 .21 6 2.30 .05 .07 1 33 95 34 446 3.11 15 S HÐ 42 2 2 80 5 L-KERB-99 • -1 17 1 1 5 19 .54 \$ 3.60 .04 .07 1 176 87 55 1027 7.33 6 5 KD 1 **Z6** 1 2 2 214 1.59 .039 -5 147 2.61 L-HER0-100 3 32 .1 30 .07 32 47 17 41 .45 .097 35 57 .88 176 .08 36 1.60 . 14 13

STD C

17 57 37 131 4.8

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27 995 3.94

42 - 16 16 20



Appendix IV

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CONVERSION FACTORS FOR METRIC UNITS



# CONVERSION FACTORS FOR METRIC UNITS

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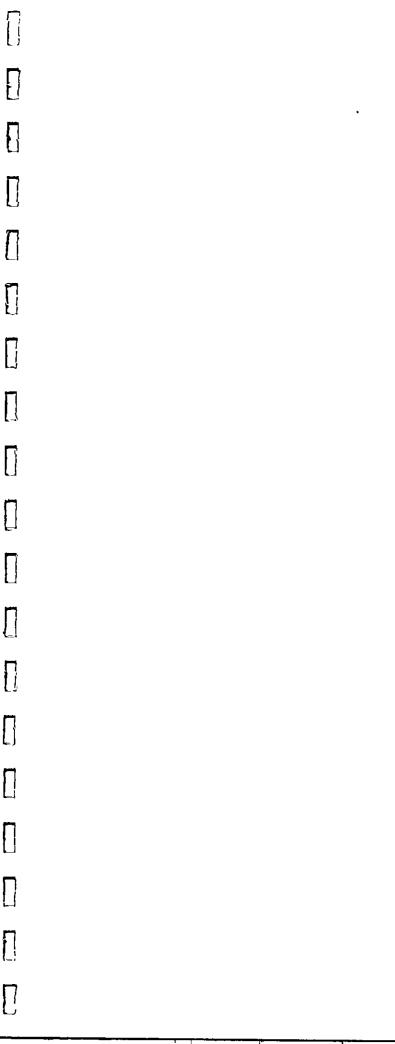
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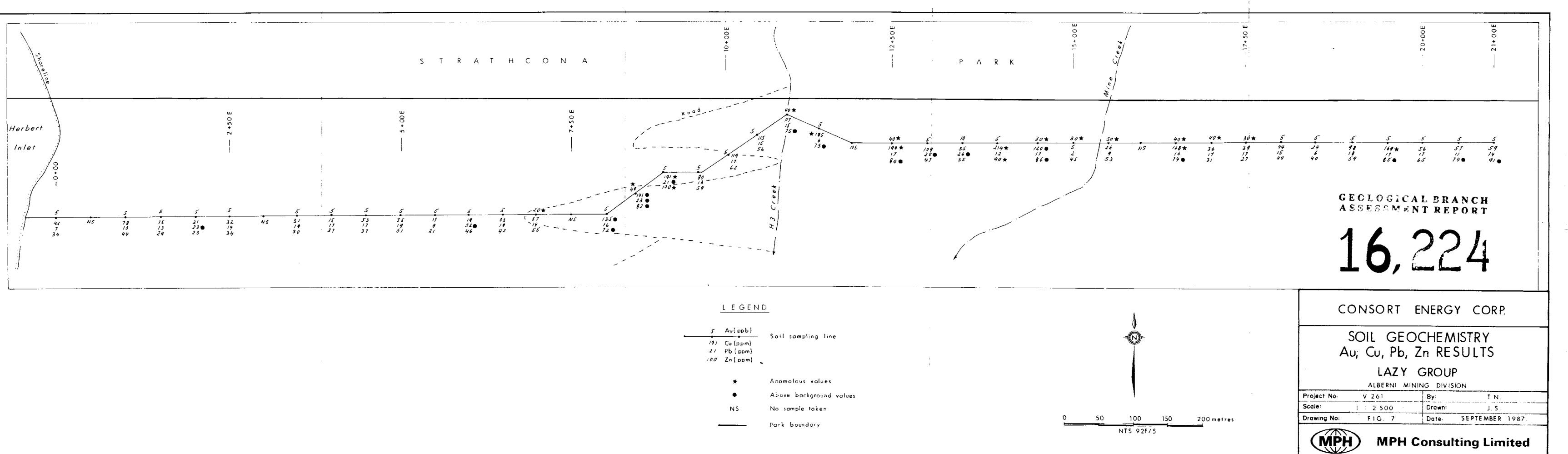
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l inch	=	25.4 millimetres	(mm)
		or 2.54 centimetres	(cm)
1 cm	=	0.394 inch	
l foot	=	0.3048 metre	(m)
l m	=	3.281 feet	
l mile	=	1.609 kilometres	(km)
l km	=	0.621 mile .	
l acre	=	0.4047 hectares	(ha)
l ha	=	2.471 acres	
1 ha	=	100 m x 100 m - 10,000 m <sup>2</sup>	
1 km <sup>2</sup>	=	100 ha	
l troy ounce	=	31.103 grams	(g)
lg	=	0.032 troy oz	
l pound	=	0.454 kilogram	(kg)
l kg	=	2.20 lb	
1 ton (2000 1b)	=	0.907 tonne	(t)
1 tonne	=	1.102  ton = 2205  lb	
l troy ounce/ton (oz/ton)	) .=	34.286 grams/tonne	(g/t)
l g/t	=	0.0292 oz/ton	(), -,
l g/t	=	l part per million	(ppm)
l ppm	=	1000 parts per billion	( ppb)
10,000 g/t	=	18	
-			







5	Au(ppb)	Soil sampling line
191	Cu (ppm)	Jort sumpting three
21	Pb (ppm)	
100	Zn(ppm)	
	*	Anomalous values
	•	Above background values
	NS	No sample taken
-		Park boundary

