86-113-14483

MPH

-2/87

REPORT ON GEOLOGICAL AND GEOCHEMICAL EXPLORATION OF THE YELLOW AND YELLOW M CLAIMS (YELLOW GROUP) ALBERNI MINING DIVISION, B.C.

NTS 92F/2E 49°10.4' N LAT. 124°39.6' W LONG.

FOR

Owner/Operator: SILVER CLOUD MINES LTD.

DECEMBER 17, 1985

T. NEALE, B.Sc. T.G. HAWKINS, P.Geol.

SUMMARY

The Yellow Group, in the Alberni Mining Division, covers the old Vancouver Island Gold Mine on Mineral Creek. The claims are probably underlain by Paleozoic Sicker Group volcanic and sedimentary rocks. Known gold mineralization is associated with 3 quartz-sulphide veins and a major north-striking carbonatized pyritized mylonite zone.

From October 21st to 24th a geological and geochemical survey was carried out. Remapping at 1:5,000 and rock sampling of the showings was carried out to determine the potential for low-grade high-tonnage gold in the mylonite zone, and for more high-grade pockets in quartz veining.

A total of 24 rock and 22 soil samples was taken and analyzed by multi-element I.C.P. and A.A.S. for Au. Seven rocks were also sent for whole rock analysis. Re-sampling of old anomalies confirmed the presence of significant gold mineralization in the mylonite zone in Mineral Creek, with a weighted value of 0.5 g Au/t (0.015 oz Au/T) over 14.75 m.

Soil sampling indicates the possibility of mineralization extending uphill from the known showings, and 700 m along strike to the south. A sample of auriferous jasper found near the south soil anomaly raises the possibility of volcanogenic related gold mineralization.

Anomalous gold values in a silicified zone on the west side of Mineral Creek indicate the possibility of significant new mineralized areas here.

A program of geological mapping and sampling with extensions to the soil sampling grid is recommended, to be followed up, if warranted, by IP surveying and trenching and eventually, diamond drilling.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

SILVER CLOUD MINES LTD.

GENERAL LOCATION MAP
YELLOW CLAIMS

ALBERNI MINING DIVISION

Project No:	V 216	By:	K. H.
Scale:	1 : 8 000 000	Drawn:	J. S.
Drawing No:	1	Date:	NOV. 1985.

MPH Consulting Limited

1.0 INTRODUCTION

This report represents the compilation of field work carried out by MPH Consulting Limited on the Yellow claim at the request of Mr. E.N. Ascroft, President, Silver Cloud Mines Ltd. for the purposes of fulfilling assessment work requirements. The Yellow M claim, which was to be included in the exploration progam was found to be invalid due to the fact that it was staked over a pre-existing claim, the Linda 2 claim. Exploration carried out included detailed geological mapping, prospecting, and rock sampling of the area of the old showings and soil anomalies, as well as soil sampling to extend previous geochemical surveys. The work was carried out from October 21 to 24, 1985 by K. Heberlein, B.Sc.

Included in the report is a summary of previous geological and mining exploration activity in the area, a description of regional and property geology, and a discussion of the economic setting of the claims, as well as a recommended work program designed to explore and evaluate the economic potential of the property.

2.0 LOCATION, ACCESS, TITLE

The Yellow and Yellow M claims are located 12 km east-southeast of Port Alberni on the northern side of China Creek, in the Alberni Mining Division of British Columbia. The claims are centred at approximately 49°10.5'N latitude, 124°39.7'W longitude on NTS mapsheet 92F/2 (Figures 1 and 2).

Access to the property is via the MacMillan Bloedel China Creek logging road from Port Alberni. Approximately 6 km from the Bainbridge Lake Road a 4WD road turns off to the north from the China Creek Road onto the property. A foot trail leads from near the end of the 4WD road to the area of the old workings (Figure 2).

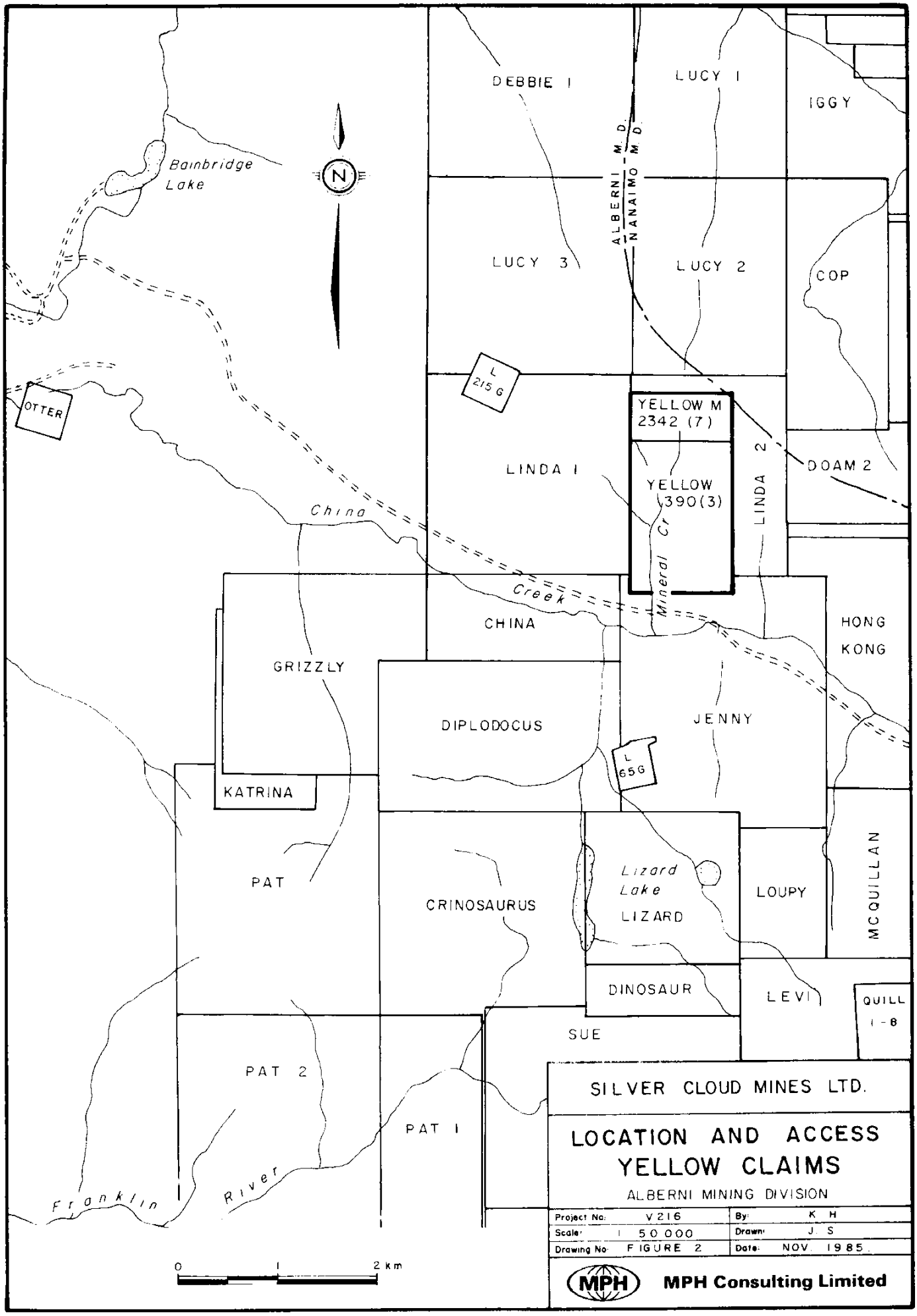
The property consists of 2 claims totalling 18 units, as described below:

Claim	Record No.	Units	Anniversary Date	Year Recorded
Yellow	390(3)	6	March 26, 1986	1979
Yellow M	2342(7)	12	July 12, 1986	1984

The Yellow claim is owned by Silver Cloud Mines Ltd., while the Yellow M claim is owned by Eric Ascroft. The claims have been grouped as the Yellow Group.

The southernmost 300 m of the Yellow claim lies within an area to which Noranda Exploration Co. Ltd. holds the base metal rights under option from MacMillan Bloedel Ltd. (Block 83, see Figure 5). The Yellow M claim entirely overlaps the previously existing Linda 2 claim of Westmin Resources Ltd. and is apparently therefore invalid. The Yellow M claim was staked in the belief that assessment work for 1983 had not been filed for the Linda 2

claim, however, it is now evident that the work was filed as the Linda 2 claim is in good standing to 1986. A detailed investigation of staking records back to at least 1979 could reveal some discrepancy in Westmin's title to the Linda 2 claim, in which case part or all of the Yellow M claim may be valid.


DEBBIE 1
LUCY 1
IGGY
ALBERNI M.D.
NANAIMO M.D.
Bainbridge Lake
N
LUCY 3
LUCY 2
COP
L 215 G
OTTER
YELLOW M 2342 (7)
LINDA 1
YELLOW 390(3)
LINDA 2
DOAM 2
China Creek
Mineral Cr
CHINA
HONG KONG
GRIZZLY
DIPLODOCUS
JENNY
L 65G
KATRINA
PAT
CRINOSAURUS
Lizard Lake
LIZARD
LOUPY
MCQUILLAN
DINOSAUR
LEVI
QUILL 1-8
SUE
PAT 2
PAT 1
Franklin River
0
1
2 km
SILVER CLOUD MINES LTD.
LOCATION AND ACCESS
YELLOW CLAIMS
ALBERNI MINING DIVISION
Project No: V216
By: K. H
Scale: 1 50 000
Drawn: J. S
Drawing No: FIGURE 2
Date: NOV. 1985
MPH
MPH Consulting Limited

3.0 PREVIOUS WORK

Government geological work in the area includes mapping by C.H. Clapp (1912), J.E. Muller and D.J.T. Carson (1969), and J.E. Muller (1977 and 1980) and a mineral compilation report by J.S. Stevenson (1945).

Previous work on the Yellow Group ground is extensive as the old Vancouver Island Gold Mine occurs within the claims. Development of the Vancouver Island Gold Mine began in 1895 when the original claims were staked. From 1896 to 1898 a relatively minor amount of tunnelling was carried out yielding about 32 tons of ore, and a 10 ton per day, 8 stamp mill was constructed by the Consolidated Alberni Mining Co. The mine lay dormant until 1933 when Vancouver Island Gold Mines Ltd. gained control of the ground. From 1933 to 1936 a total of 403 tons of ore was mined and a 35 ton mill was constructed. A small shipment of ore was also made in 1939.

A regional aeromagnetic survey flown by Hunting Survey Corp. Ltd. in 1962 covered the claim block.

During the period 1963-1966, Gunnex Ltd. carried out a regional mapping program over a large portion of the E & N Land Grant, with some prospecting and silt sampling. They compiled a list of all the known mineral occurrences in the area and visited many of them. Some sampling was carried out at the mine in 1964.

Keywest Resources Ltd. carried out surface and underground mapping and sampling in 1973-74. Western Mines Ltd. carried out reconnaissance geological mapping and soil sampling in the area in 1976.

Silver Cloud Mines Ltd. has owned the property since 1979. Access road construction and limited exploration have been carried out. In 1981 and 1983, sampling of the accessible stopes and the mylonite zone was carried out by A & M Exploration Ltd. (Allen, 1985). Soil sampling over the known showings outlined an area 425 m by 300 m with gold values greater than 100 ppb. Within this area a smaller zone of 120 m by 300 m with values over 1000 ppb gold is centred over the old workings, but also extends uphill beyond the old workings. High gold values were shown to be associated with high arsenic.

Mapping down Mineral Creek and reconnaissance soil sampling in the south claim was continued by A & M in May 1985. Further geological, geochemical and geophysical surveys were recommended to define drill targets.

Further information on the Vancouver Island Gold Mine is contained in Section 4.8 (Mineral Occurrences) of this report.

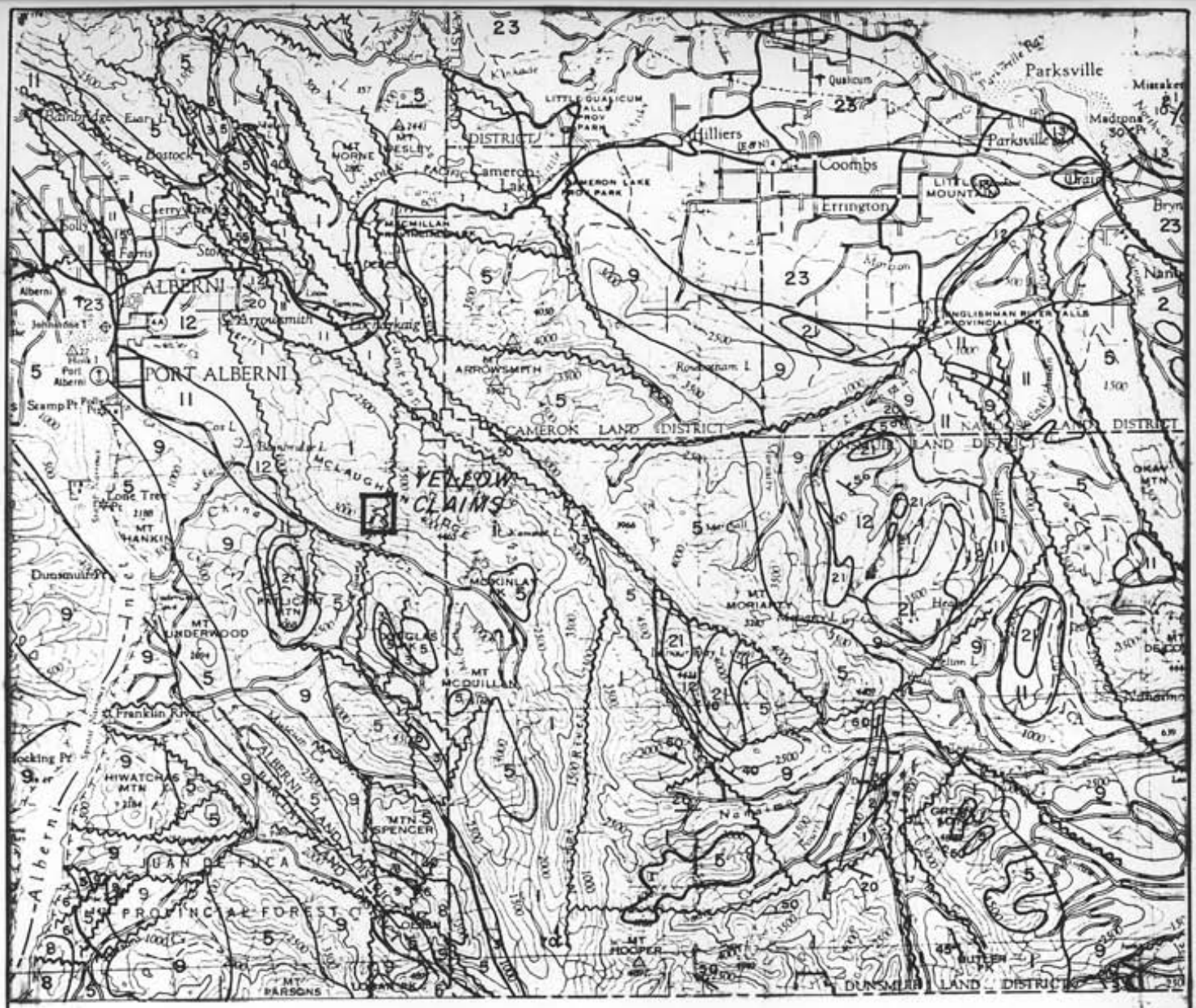
4.0 REGIONAL GEOLOGY

The predominant rock units in the Port Alberni-Nitinat River area are the Upper Paleozoic Sicker Group rocks and the Lower Mesozoic Vancouver Group rocks. Both are eugeosynclinal sequences of volcanic and sedimentary rocks. Lesser amounts of the Upper Cretaceous Nanaimo Group and of intrusive rocks of various ages also occur (Figure 3).

4.1 Sicker Group

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

The Nitinat Formation (Unit 1) consists predominantly of basic volcanic rocks, most commonly flow-breccias, including some massive flows and rare pillow basalts or agglomerates. Locally, medium grained, generally massive basaltic tuff is interbedded with the flows. The flow-breccia is composed of fragments of basalt up to 30 cm in length containing uralite phenocrysts and black or white amygdules, both from 1 mm to more than 1 cm in size, in a matrix of finer grained, similar basalt(?). Thin sections show that the uralite is replacing diopside. Uralitized gabbroic rocks underlie and intrude the volcanics and are believed to represent feeder dykes, sills, and magma chambers to the volcanics. The Nitinat Formation may be distinguished from the similar Karmutsen Formation by the usual lack of pillow basalts, the abundance of uralite phenocrysts, the pervasive shear foliation, and lower greenschist or higher metamorphic grade.



LEGEND

QUATERNARY

23 — Glacial and alluvial deposits

TERTIARY

21 — Hornblende quartz diorite, leucoquartz monzonite, porphyritic dacite, breccia.

UPPER CRETACEOUS
NANAIMO GROUP

13 — EXTENSION-PROTECTION FM.: sandstone, conglomerate, shale, coal.

12 — HASLAM FM.: shale, siltstone, fine sandstone.

11 — COMOX FM.: sandstone, conglomerate, shale, coal.

MIDDLE TO UPPER JURASSIC

9 — ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite.

LOWER JURASSIC

8 — BONANZA GROUP: andesitic to latitic breccia, tuff, and lava; minor greywacke, argillite, and siltstone.

UPPER TRIASSIC
VANCOUVER GROUP

6 — QUATSINO FM.: massive to thick bedded limestone, minor thin bedded limestone.

5 — KARMUTSEN FM.: pillow-basalt and pillow breccia, massive basalt flows; minor tuff, volcanic breccia; Jasperoid tuff, breccia and conglomerate at base.

TRIASSIC OR PERMIAN

4 — Gabbro, periodite, diabase.

LOWER PERMIAN TO PENNSYLVANIAN
SICKER GROUP

3 — BUTTLE LAKE FM.: limestone, chert.

2 — MYRA FM.: lower unit; argillite, greywacke, conglomerate, tuff, minor limestone.
Upper unit; rhyodacite to rhyolite tuff, lapilli tuff, breccia lesser siliceous siltstone, argillite, quartz porphyry and mafic flows.

1 — NITINAT FM.: basaltic uralite porphyry, agglomerate, pillow lava; greenschist.

0 5 10 km

N

SILVER CLOUD MINES LTD.

REGIONAL GEOLOGY MAP
YELLOW CLAIMS

ALBERNI MINING DIVISION

Project No:	V 216	By:	K. H.
Scale:	1:250,000	Drawn:	J. S.
Drawing No:	FIGURE 3	Date:	NOV. 1985

MPH Consulting Limited

The Myra Formation (Unit 2) unconformably overlies the Nitinat Formation. In the Nitinat-Cameron River area the Myra Formation is made up of a lower massive to widely banded basaltic tuff and breccia unit, a middle thinly banded pelitic albite-trachyte tuff and argillite unit, and an upper thick bedded, medium grained albite-trachyte tuff and breccia unit. In the lower unit crudely layered mottled maroon and green volcaniclastic greywacke, grit, and breccia are succeeded by beds of massive, medium grained dark tuff up to 20 m thick interlayered with thin bands of alternating light and dark fine grained tuff with local fine to coarse breccias containing fragments of Nitinat Formation volcanics. The middle unit is comprised of a sequence of thinly interbedded, light feldspathic tuff (albite trachyte or keratophyre composition) and dark marine argillite which has the appearance of a graded greywacke-argillite turbidite sequence. In the upper part of the middle unit sections of thickly bedded to massive black argillite occur. The upper unit contains fine and coarse crystal tuffs in layers up to 10 m thick with local rip-up clasts and slabs of argillite up to 1 m in length as well as synsedimentary breccias of light coloured volcanic and chert fragments in a matrix of black argillite.

The type locality of the Myra Formation is Myra Creek, at the south end of Buttle Lake, about 80 km northwest of the Yellow Group. There, volcaniclastic rocks consisting dominantly of rhyodacitic or rhyolitic tuff, lapilli tuff, breccia, and some quartz porphyry and minor mafic flows and argillite (Upper Myra Formation) are host to Westmin Resources' Myra, Lynx, Price, and H-W massive sulphide (Cu-Zn-Pb-Au-Ag-Cd) deposits.

Muller (1980) estimated the thickness of the Nitinat Formation at about 2000 m and that of the Myra Formation at 750 to 1000 m. Both the Nitinat and Myra Formations were dated as Devonian and/or older by Muller (1980).

The Sediment-Sill Unit contains thinly bedded to massive argillite, siltstone, and chert with interlayered sills of diabase. It is transitional between the Myra and Buttle Lake Formations. It is not mapped within the report map area.

The Buttle Lake Formation (Unit 3) 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. The age of the formation, on the basis of fossil dating appears to be Middle Pennsylvanian, but could possibly be as young as Early Permian (Muller, 1980).

4.2 Vancouver Group

The Karmutsen Formation volcanic rocks (Unit 5) overlie the Buttle Lake Formation limestone paraconformably to form the base of the Vancouver Group. They are the thickest and most widespread rocks on Vancouver Island. The formation, which is well exposed southeast of Port Alberni, consists mainly of dark grey to black pillowed basalt, massive basalt, and pillow breccia. Flows are commonly aphanitic and amygdaloidal. Pillowed volcanics generally occur toward the base of the section.

Conglomerate containing clasts of Sicker Group rocks and jasperoid tuff form basal sections in the Nitinat-Horne Lake area.

Karmutsen Formation rocks are generally relatively undeformed compared to Sicker Group rocks and are dated Upper Triassic and older.

Massive to thick bedded limestone of the Quatsino Formation (Unit 6) occurs south of Mount Spencer. The limestone is black to dark grey and fine grained to micro-crystalline. In the vicinity of intrusive rocks, coarse grained marble is recognized. Thin bedded limestone also occurs in the formation. Fossils indicate an age of Upper Triassic (Muller and Carson, 1969).

4.3 Bonanza Group

The Bonanza Group (Unit 8) is made up of interbedded lava, breccia, and tuffs ranging in composition from basalt to rhyolite with intercalated beds of marine argillite and greywacke. It is exposed south of Mount Spencer and south of Corrigan Creek and consists of light coloured andesite to latite breccia, tuff, and flows with minor greywacke, argillite, and siltstone. The Bonanza Group is considered to be of Lower Jurassic age.

4.4 Nanaimo Group

Upper Cretaceous Nanaimo Group sedimentary rocks are scattered throughout the area. Extensive exposures occur near Port Alberni, Patlicant Mountain, and south and northwest of Mount Moriarty. The formations present comprise the basal portions of the Nanaimo Group.

The Comox Formation (Unit 11) consists mainly of quartzofeldspathic, cross-bedded beach facies sandstone and lesser conglomerate. Numerous intercalations of carbonaceous and fossiliferous shale and coal are characteristic.

The Haslam Formation (Unit 12) is a near shore littoral depositional facies unit characterized by massive bedded fossiliferous sandy shale, siltstone and shaly sandstone.

Interbedded coarse clastic conglomerate, pebbly sandstone and arkosic sandstone of the Extension-Protection Formation (Unit 13) are beach and deltaic sands. Minor shale and coal are reported.

4.5 Intrusive Rocks

Gabbro, Peridotite, Diabase (Unit 4). Mafic and ultramafic rocks of Triassic or Permian age are scattered throughout the area. A large band is exposed approximately 8 km north of Port Alberni.

Although mapped as intrusive, some of these rocks may be basal flow units of the Karmutsen Formation.

Island Intrusions (Unit 9). Exposures of mainly quartz diorite and lesser biotite-hornblende granodiorite occur throughout the area and are assigned an age of Middle to Upper Jurassic. Intrusive contacts with Sicker and Bonanza Group volcanic rocks are characterized by transitional zones of gneissic rocks and migmatite although contacts with Karmutsen Formation volcanic rocks are sharp and well defined. Skarn zones are reported at the contact of Island Intrusion rocks with Quatsino Formation limestone and less frequently with Buttle Lake Formation limestone.

Tertiary (Catface or Sooke) Intrusions (Unit 21). Sills and stocks of mainly hornblende-quartz diorite and dacitic hornblende-feldspar porphyry plus lesser leucocratic quartz monzonite intrude Nanaimo Group sedimentary rocks and Sicker Group rocks in the area.

4.6 Structure

The Buttle Lake Arch, Cowichan-Horne Lake Arch and Nanoose Uplift are north-northwesterly trending axial uplifts and are believed to be the oldest structural elements in south central Vancouver Island. Uplifting occurred before the late Cretaceous, and possibly before the Mesozoic (Muller and Carson, 1969). Sicker Group volcanic and sedimentary rocks occur at the core of these uplifts.

Asymmetric southwest verging anticlinal structures characterized by sub-vertical southwest limbs and moderately dipping northeast limbs are reported at Buttle Lake and in the Cameron-Nitinat River area. Intense shearing and metamorphism to chlorite-actinolite and chlorite-sericite schist occurs in steep and overturned limbs of folds. Overlying Buttle Lake Formation limestones are relatively undeformed except where they are thin.

Vancouver Group units are not as intensely folded; gentle monoclinal and domal structures have been mapped. However, Karmutsen Formation volcanic rocks locally conform to the attitude of underlying Myra and Buttle Lake Formations (Muller, 1980).

Some early Mesozoic faulting occurred in the area prior to emplacement of Island Intrusions. Middle to Upper Jurassic intrusive activity (Island Intrusions) occurred along northwesterly trends.

Extensive west-northwest trending faulting occurred during the Tertiary and is best illustrated by large displacements of Nanaimo Group sediments. The north trending Alberni Valley fault is traced over 45 miles and displaces a section of Karmutsen Formation approximately 5,000 feet (Muller and Carson, 1969).

4.7 Economic Setting

The Sicker Group, and to a lesser extent, the Vancouver Group of volcanic rocks, have been explored intermittently since the 1890's for gold and base metal mineralization.

Until recently, deposits of copper and gold-silver in quartz veins and shear zones hosted by mafic to intermediate volcanic rocks and base metal plus gold-silver skarn deposits were the most widely recognized economic and subeconomic metal concentrations in the Port Alberni area. Placer mining for gold was carried out during the 1940's in various localities, especially in the China, Mineral and Corrigan Creeks area.

The volcanogenic massive sulphide deposits of Westmin Resources Ltd., first discovered in 1917 although not recognized as volcanogenic until the late 1960's, occur at Buttle Lake, approximately 70 km northwest of the Port Alberni area. Four zones of mineralization consisting of the ore minerals sphalerite, chalcopyrite, galena, tetrahedrite-tennantite plus minor bornite and covellite, are hosted by pyritic rhyolitic to rhyodacitic volcanic and pyroclastic rocks of the Myra Formation.

Proven reserves of the Lynx (open pit), Price and Myra deposits are 1,021,400 T grading 1% Cu, 0.9% Pb, 7.4% Zn, 0.06 oz Au/T, 2.6 oz Ag/T (1983). Published reserves of the H-W zone are 15,232,000 T averaging 2.2% Cu, 5.3% Zn, 0.3% Pb, 0.07 oz Au/T and 1.1 oz Ag/T (Walker, 1983). In the 3 years 1980 to 1982, there were 895,048 T of ore milled producing 16,109,000 lbs Cu, 96,356,000 lbs Zn, 14,231,000 lbs Pb, 56,000 oz Au, 2,528,000 oz Ag and 129,000 lbs Cd.

Another volcanogenic massive sulphide deposit in the Sicker Group is the Twin J Mine near Duncan on Mount Sicker, about 74 km

southeast of the Yellow Group. Two parallel orebodies, each containing pyrite, chalcopyrite, sphalerite and minor galena in a barite-quartz-calcite gangue and chalcopyrite in quartz, occur in schists believed to have been derived from acidic volcanics (Myra Formation).

Total production from 1898 to 1964 was 305,770 tons producing 44,491 oz Au, 934,522 oz Ag, 21,053,360 lb Cu and 45,864,654 lb Zn with at least 362,854 lb Pb and 10 lb Cd.

On the Lara property, 65 m southeast of the Yellow Group, Aberford Resources Ltd. has completed 40 diamond drill holes on geochemical and geophysical anomalies. In January 1985 an intersection of 26.2 feet (true thickness) of mineralization grading 0.1 oz Au/ton, 1.97 oz Ag/ton, 3.01% Zn, 0.68% Cu, and 0.45% Pb was announced. By July 1985 the discovery zone had been traced for 1,300 feet and to an average depth of 350 feet. The zone is open on both ends and to depth. The zone grades 0.051 oz Au/ton, 1.12 oz Ag/ton, 1.98% Zn, 0.44% Cu, and 0.36% Pb and averages 20.53 feet in true width. A diamond drill hole located 1,650 feet east of the zone along strike intersected 12.07 feet (true thickness) of massive sulphide mineralization grading 0.213 oz Au/ton, 8.60 oz Ag/ton, 9.22% Zn, 1.16% Cu, and 2.53% Pb.

The mineralized zone is stratiform and is hosted by a rhyolite porphyry unit of the Sicker Group. Metal ratios of the zone are very close to those of the Buttle Lake mines of Westmin Resources Ltd. The Twin J Mine is located 9 km southeast of the Lara property (i.e. on strike) and is geologically similar.

On the Villalta property, massive hematite up to 46 feet thick carries Au. The hematite occurs in a paleo-karst topography at the top of the Buttle Lake Formation. A reserves estimate of 200,000 tons indicated ore grading 0.1-0.2 oz Au/ton with minor

base metals content was made in 1981. Asarco Exploration Co. of Canada Ltd. and Falconbridge Ltd. have carried out exploration programs since 1981. The Villalta property is located 14 km east-southeast of the Yellow Group.

Five past producing mines occur in the Port Alberni area (Figure 4). The Thistle Mine produced 2,760 oz Au, 2,120 oz Ag and 681,425 lbs Cu from 6,920 T of ore. It was originally considered to be a skarn deposit (Stevenson, 1945; Carson, 1968) but is now being explored as a volcanogenic massive sulphide prospect. A total of 16 significant Cu and/or Au mineralization occurrences have been located on the property, 15 of which are located within a 225 m thick unit of mainly basaltic flows which are believed to be correlative with Muller's Sediment-Sill Unit and/or Myra Formation. Surface assays reported range from 0.226 to 1.22 oz Au/ton, 0.15 to 1.33 oz Ag/ton, and 2.71 to 10.2% Cu over apparent true thicknesses of 15 cm to 4 m. The best assay from 1984 diamond drilling was 0.514 oz Au/ton over 20 cm. Westmin has spent approximately $406,000 on the property in 1983 and 1984. A further $400,000 is to be spent in 1985. A recent news release (October 22, 1985) states that the exploration target on the Thistle property is a volcanogenic deposit of at least 3 million tons grading 0.2 oz Au/ton and 2% Cu. The Thistle Mine is located 7 km south of the Yellow Group.

The Havilah Mine (1,046 T produced 259 oz Au, 1,404 oz Ag) and the Vancouver Island Gold Mine (483 T produced 384 oz Au, 52 oz Ag) are quartz vein deposits hosted by andesite and andesite tuff of the Sicker Group.

The Black Panther Mine is a quartz vein deposit hosted by a shear zone in Sicker Group andesite and Island Intrusions diorite located 10 km south of the Yellow Group. Production of 1,890 T

of ore yielded 509 oz Au, 953 oz Ag, 12,319 lbs Pb and at least 4,478 lbs Zn and 498 lbs Cu.

The other past producer in the area is the 3-W Mine which consists of gold-bearing quartz veins in Island Intrusions diorite and granodiorite. Production amounts to 116 tons of ore grading 4.0 oz Au/ton, 4.3 oz Ag/ton, 0.23% Cu, and 1.1% Pb. The 3-W Mine is located 16 km south-southwest of the Yellow Group.

4.8 Mineral Occurrences and Deposits

1. Vancouver Island Gold; (Victoria, L.205G; Alberni, L.206G; Missing Link, L.214G; Alberni Consolidated) Au Ag Cu

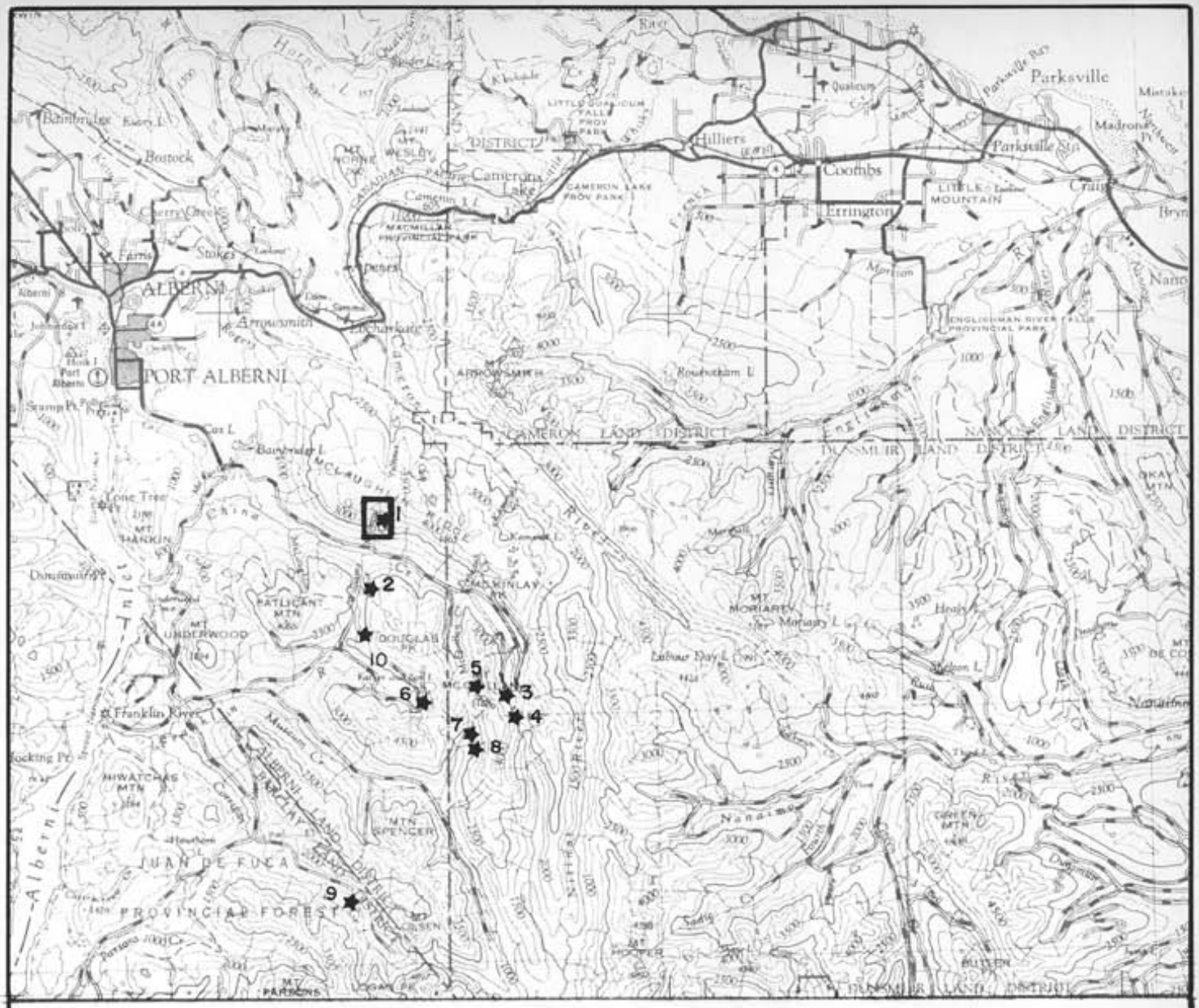
Geology

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

Economic Features

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

The Mac vein is traced for 250 feet and ranges from 3 to 18 inches wide, averaging 5 to 6 inches. Sixty-three samples taken over the 250 feet averaged 6 inches in width and 3.69 oz Au/ton. The highest assay was 20 oz Au/ton. A 40 ton shipment from the Mac vein returned 2.9 oz Au/ton and 0.5 oz Ag/ton (Ref. 1-1934).



GOLD DEPOSITS AND OCCURRENCES

1. Vancouver Island Gold Mine
2. Regina
3. Golden Eagle
4. B & K
5. Havilah
6. Thistle
7. Black Panther
8. Black Lion
9. 3-W
10. Lizard Lake

N

0 5 10 km

SILVER CLOUD MINES LTD.

MINERAL OCCURRENCE LOCATION MAP YELLOW CLAIMS

Project No:	V 216	By:	
Scale:	1 : 250,000	Drawn:	J. S.
Drawing No:	FIGURE 4	Date:	NOV. 1985.

MPH Consulting Limited

The Belcher vein is exposed discontinuously for 950 feet and ranged from almost nothing to 4 feet in width, averaging 6 to 12 inches in the upper adit. Gold content is reported to be low except in the shaft and stope workings. Recent sampling results show from 0.003 to 0.29 oz Au/ton and from 0.06 to 0.10 oz Ag/ton over 5 foot lengths (Ref. 3).

The Dunsmuir vein is exposed in trenches for about 400 feet and ranges up to 10 inches in width. No assays are reported (Ref. 1-1936).

The Waterfall vein is exposed for 108 feet and is 3 inches to 2.5 feet wide. Gold assays were low in sampling done by Vancouver Island Gold Mines Ltd., except for two samples which ran 1.4 oz Au/ton over 3 inches and 11.8 oz Au/ton over 6 inches (Ref. 1-1934). This illustrates the very spotty nature of free gold distribution.

Seventy-nine chip samples taken from the carbonatized shear zone by the BCDM assayed from nil to 0.16 oz Au/ton over widths of 5 and 10 feet (Ref. 1-1936).

A 1934 BCDM report stated that there is a possible relationship between bands of sediments and gold mineralization, as the gold values in the Mac vein are concentrated just above a bed of argillaceous sediments, and are low below that.

History

1895: Alberni, Chicago, Warspite, Victoria claims staked; dispute over ownership.

1896: Alberni Consolidated Mining Co.; won dispute, shaft at 40 feet and a tunnel being driven, two tons of ore

shipped from a smaller vein (Dunsmuir?) uphill from main vein, open cut on 8-30 inch vein on Chicago claim.

1897-98: An English company built a 10 ton per day 8 stamp mill and only made two clean-ups. Results unknown.

1933-39: Vancouver Island Gold Mines Ltd. (NPL); R.W. Williams leased the reverted Crown Grants in 1933 and turned them over to Vancouver Island Gold Mines. Numerous open cuts were made, 5 adits totalled 1,905 feet including various raises, etc. on the quartz veins and 2 adits totalling 277 feet and 12 strippings were made on the carbonatized shear zone. A total of 403 tons of ore was mined. In 1936 a 35 ton pilot mill was built, but only milled a few tons of ore before the operations were ceased due to operating difficulties. In 1939 some rehabilitation work was done in the Mac adits and 48 tons of ore were shipped.

1964: Gunnex Ltd.; visited property, some sampling. Mapping planned for 1966.

1973-74: Keywest Resources Ltd.; (Sam Group) sampling in Belcher adits, prospecting, geological mapping on surface and underground.

1976: Western Mines Ltd.; (Tasha-Shannon and Rupert-Dog claim groups) reconnaissance geological mapping and soil sampling.

References

1)	MMAR	1895-650, 1896-6, 1897-566, 1898-1132, 1934-F2-4, 1936-F25-30, 1944-148
2)	GEM	1973-230, 1974-173
3,4)	AR	4915, 6153
5,6)	GSC	P68-50 p38
		Map 1963-49
7)	Gunnex	#6
8)	Minfile	92F079

2. Regina (L.55G) Au Ag Cu

Geology

Lenses and veinlets of quartz with pyrite, chalcopyrite, some galena, and Au and Ag values occur in shears in silicified and pyritized Sicker Group andesite. Some reports also mention sphalerite in the quartz. Another type of showing occurs in highly silicified and leached pyritic, ankeritic andesite which contains gold values.

Economic Features

The quartz lenses and silicified zones vary up to 2 feet in width but the mineralized portions appear to be very discontinuous. A grab sample of quartz with considerable pyrite, chalcopyrite, and galena from the dump assayed at 0.66 oz Au/ton, 14.0 oz Ag/ton (Ref. 1-1944). A large, highly oxidized bulk sample from the carbonatized zone assayed 0.64 oz Au/ton, trace Ag (Ref. 1-1944). A sample from 20 tons of ore on the dump (possibly hand sorted) in 1930 returned $3.60 Au/ton, 5 oz Ag/ton, 5.0% Cu (Ref. 1-1930). A grab sample from 40 tons of high grade hand-picked ore on the dump in 1964 assayed 0.02 oz Au/ton, 1.8 oz Ag/ton, 2.57% Cu, 1.98% Pb, and 9.01% Zn (Ref. 7).

History

1898: Alberni Gold Development Syndicate; granted Crown Grants L.54, 55, 57.

1930: E. Maralia; an open cut and an incline shaft a few feet deep. Twenty tons of ore from this work on a dump.

1944: E. Marillia; no recent work. Five adits totalling 288 feet, a 30 foot incline shaft, 2 open cuts, and a 5 foot pit at the entrance to one of the adits exist. All probably date back to the late 1890's.

1964-65: Gunnex Ltd.; visited the workings, sampling, prospecting, in the general area.

1976: Western Mines Ltd.; (Tasha) geological mapping 1:14,400, soil sampling.

References

1)	MMAR	1898-1197, 1930-291, 1944-148-150
2)	EBC	1976-111
3)	BCDM	Bull 1 p132 (Special Report #5, 1936)
4)	AR	6153
5,6)	GSC	P68-50 p38 Map 1963-49
7)	Gunnex	#7
8)	Minfile	92F078

3. Golden Eagle (L.198G) Au

Geology

A vein of ribbon-quartz cuts a small intrusion of feldspar porphyritic diorite and contains pyrite, minor sphalerite, galena, chalcopyrite, and arsenopyrite (about 10% total sulphides) and gold values. Sicker Group volcanics and bedded cherts occur in the area.

Economic Features

The vein varies from a few inches to 8 feet, averaging about 3.5 feet, in width and has been traced in outcrop for 400 feet along strike and 325 feet vertically. An assay of $56 Au/ton, 3 oz Ag/ton, and 1% Cu is reported, and assays of up to $103 Au/ton are reported to have been obtained in 1894 (Ref. 1-1899). A tunnel 500 feet below the surface showing never intersected the vein despite being driven 1,500 feet beyond the estimated intersection point of 600 feet.

History

1892: The discovery of 2 quartz veins by prospectors searching for the source of the China Creek placer gold prompted the original claims to be staked.

1893-1902: Various individuals and/or companies; 4 adits totalling 205 feet in upper workings, an adit driven at a lower level to avoid snowslides from 1896-1902 reached 2,100 feet without intersecting mineralization, "development work" of an unspecified nature.

1964-65: Gunnex Ltd.; prospecting and silt sampling in the general area. Also visited the lower adit and a showing near Summit Lake (B and K?) where rock samples were taken.

References

1)	MMAR	1893-1080, 1894-773, 1895-651, 1896-7, 556, 1897-566, 1898-1132, 1899-607, 779, 785, 1902-230, 1944-G150
2)	AR	10194
3,4)	GSC	P68-50 p38
		Map 49-1963, 17A
5)	Gunnex	#12
6)	Minfile	92F080

4. B and K Au Ag

Geology

Many widely scattered narrow quartz veins containing pyrite, and minor galena, sphalerite, and chalcopyrite with Au and Ag values occur in andesite tuffs and flows, basalt, and local black chert; often in shear zones. A zone of strongly carbonatized andesite 6 to 25 feet wide contains minor pyrite, galena, and sphalerite in narrow veinlets. In the southern workings, veins are surrounded by a strong ankeritic carbonate alteration zone.

Economic Features

The "high-grade" vein has been exposed in open cuts for 130 feet and is 5 to 8 inches wide. A sample assayed at 3.84 oz Au/ton, 3.2 oz Ag/ton, 0.06% Cu over 5 inches. This vein may be on Golden Eagle property (Ref. 4).

A vein near the north end of the workings varies from 2 to 6 inches to a 6 foot stringer zone in width. Assays of 2.56 and 2.26 oz Au/ton are reported (Ref. 1-1944).

A sample from quartz nodules containing galena and pyrite from an open cut on two parallel shears, each 18 inches wide, ran 0.82 oz Au/ton and 0.7 oz Ag/ton (Ref. 4).

No assays are reported from the carbonatized zone. Many other quartz veins, from a hairline to 8 inches wide, for which no assays are available, occur within an area about 1,250 feet long.

History

1938-40: Angus Beaton, Ed Keisig; staked claims, prospecting, 17 open cuts and trenches, stripping.

1964-65: Gunnex Ltd.; prospecting and silt sampling in the general area.

References

1)	MMAR	1944-151
2,3)	GSC	P68-50 p38
		Map 49-1963
4)	Gunnex	#13
5)	Minfile	92F081

5. Havilah (King Solomon, Storm, Red Rose, Spike, Sol 14) Au Ag Cu Pb Mo

Geology

Sicker Group andesite is intruded by Jurassic diorite and by Tertiary hornblende-feldspar and quartz-feldspar porphyry stocks, dykes, and sills. Ribbon-quartz veins and lenses containing abundant pyrite, sphalerite, and galena and lesser chalcopyrite and arsenopyrite occur in shears in the andesite. Occurs on the same shear zone as Black Panther (#7 below) and Black Lion (#8 below).

Economic Features

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

The Gillespie vein is the lowest. It is 3 to 34 inches wide and has been traced for 650 feet in 5 trenches. Most of the production came from the Gillespie vein. Assays range up to 0.4 oz Au/ton, 2.2 oz Ag/ton, 0.4% Pb, and 0.30% Zn over widths from 4 to 63 inches (Ref. 1-1936, 1944). Some oxidized samples taken over 1 foot assayed as high as 7 oz Au/ton and 3 oz Ag/ton. Average grade of the ore shipped from the Gillespie vein was 0.235 oz Au/ton and 1.28 oz Ag/ton (Ref. 1-1939). The vein was faulted off in two of the three adits, and could not be re-discovered.

The Alberni vein consists of a 10 foot wide by about 70 feet long zone of intense shearing containing 1 to 3 lenticular quartz veins 4 to 24 inches wide. Assays of 3.66 oz Au/ton and 5.2 oz Ag/ton over 4 inches and 1.8 oz Au/ton and 2.3 oz Ag/ton over 20 inches are reported (Ref. 9).

The McQuillan vein was prospected with a 57 foot adit. It ranges up to 8 inches in width. Assays of up to 1 oz Au/ton over 8 inches and 1.6 oz Ag/ton over a different 8 inches, are reported (Ref. 9).

A fourth vein on the easterly side of the cirque 1 to 2 feet wide assayed 0.16 oz Au/ton and 0.6 oz Ag/ton from an oxidized 2 foot sample (Ref. 9).

History

1893: First mentioned in MMAR (King Solomon).

1895: An open cut on the McQuillan(?) vein.

1936-44: Havilah Gold Mines Ltd.; claims staked in 1934 and 1936 by Walter Harris. In 1936, 7 tons of ore were mined from the upper showings (Alberni and McQuillan veins). In 1938-39, 2,072 feet of drifting, crosscutting and raising on three levels on the Gillespie vein resulted in production of 1,039 tons of ore. Diamond drilling and prospecting were also carried out. A high-line tram was built to transport ore and supplies between the base camp and the mine. Little if any work was done after 1939.

1947: Nitinat Mines Ltd.; owned the ground.

1964: Gunnex Ltd.; silt sampling in McQuillan Creek drainage, rock sampling wherever mineralization was observed.

1974-77: Cominco Ltd.; geological mapping 1:4,800, soil sampling, trenching, several IP and resistivity surveys.

References

1) MMAR 1893-1080, 1895-652, 1936-F30, 1939-38, 1944-G153

2) GEM 1974-172

3) EBC 1975-E95, 1976-E111, 1977-E110

4-6) AR 5354, 6138, 6643

7,8)	GSC	P68-50 p38 Map 49-1963, 17A
9)	Gunnex	#11
10)	Minfile	92F082

6. Thistle Au Ag Cu

Geology

The area is underlain by a belt of upper Sicker Group volcanic rocks folded into a large complex anticline. The mine is located within a package of rocks known as the Flow Complex (probably correlative to Muller's Sediment-Sill Unit) which unconformably(?) underlies the Buttle Lake Formation. The Mine Flow Unit of the Flow Complex hosts the mine and 15 of 16 additional Cu and/or Au showings on the property.

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

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

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

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

Economic Features

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

History

1896: First staked.

1899: A. Watson et al; lower adit (500 adit) driven 65 feet but had not intersected ore that was 6 to 8 feet wide on surface, upper adit (300 adit) driven 90 feet but also had not intersected an orebody. A pit on one of the surface showings.

1901: Alberni Gold and Copper Co. Ltd.; roadbuilding, development work.

1902: J.M. Watson; granted Crown Grant L.91G.

1927: A. Watson et al; a 25 foot tunnel with a 20 foot crosscut, all in ore. (300A adit?)

1938-1940: United Prospectors Ltd.; shipments of ore were made from open cuts and glory holes and the old dumps.

1941-1942: Vancouver Island Diamond Drilling and Exploration Co.; 1,789 tons ore mined, shut down July 25, 1942.

1944: The workings existing on the property included four adits totalling 527 feet, an 18 by 25 foot stope 60 feet long, two glory holes totalling about 6,000 cubic yards,

and several open cuts. Owned by United Prospectors Ltd., but no work done since 1942.

1962: Hunting Survey Corp.; regional aeromagnetic survey, geological mapping at the mine area.

1964-1965: Gunnex Ltd.; visited the area, but no mapping done, silt sampling and prospecting in the general area.

1965: Vananda Explorations Ltd.; magnetometer, SP, and geochemical surveys, 4 diamond drill holes totalling 1,745 feet.

1979: Kargen Development; linecutting, soil sampling.

1982: McQuillan Gold; airborne EM and magnetometer surveys, soil sampling, rock sampling, trenching, EM survey.

1983-85: Westmin Resources Ltd.; geological mapping, rock sampling (for assay, whole rock geochem and thin sections), prospecting, diamond drilling.

References

1) MMAR 1899-778, 1901-1097, 1902-307, 1927-340, 1928-366, 1930-291, 1939-40,88, 1940-73, 1941-71, 1942-66, 1944-154-157, 1965-238

2-5) AR 8088, 9126, 10237, 11064

6-7) GSC P68-50 p38
Map 49-1963

8) Gunnex #10

9) Minfile 092F083

10) Nexus Resource Corporation; News Release dated November, 1983

11) VS October 22, 1985

7. Black Panther (Nitinat) Au Ag Pb Zn Cu

Geology

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

Economic Features

The shear zone has been traced for at least two miles but the best mineralization is at the Black Panther workings where quartz lenses are one inch to three feet thick and up to 40 feet long. Four samples containing "heavy sulphides" from the 2700 and 2790 adits assayed from 2.30 to 2.88 oz Au/ton (Ref. 1-1944). A 1964 assay from the dump is reported as 1.16 oz Au/ton, 2.1 oz Ag/ton, 0.14% Cu, and 1.73% Pb (Ref. 4).

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

History

1936: Claims first staked, upper adits driven shortly thereafter.

1939: Walter Harris; prospecting, drifting, cross-cutting (presumably those adits referred to above).

1941: Pioneer Gold Mines of B.C. Ltd.; drove the 2700 (Main) adit and the 2450 adit (about 1,200 feet of drifting, crosscutting, and raising), 1,631 feet of diamond drilling.

1944-48: Nitinat Golds Ltd. (became Nitinat Mines Ltd. in 1947); built a 25 ton flotation mill, mining, shipped 68.5 tons of concentrate.

1962: Hunting Survey Corp.; regional aeromagnetic survey, geological mapping at the workings.

1964-65: Gunnex Ltd.; visited the workings, took a rock sample.

References

1)	MMAR	1939-88, 1941-71, 1944-157, 1945-114, 1947-182
2,3)	GSC	P68-50 p38 Map 49-1963
4)	Gunnex	#14
5)	Minfile	92F084

8. Black Lion Au Ag

Geology

Similar to Black Panther (#7 above), as the Black Lion is on the southerly extension of the same shear zone as Black Panther. Zones of quartz-sulphide (pyrite, galena, gold values) stringers are found in a strongly carbonatized zone 10 inches to 9 feet wide with local evidence of strong shearing.

Economic Features

Open cuts exposed the "vein" for 175 feet with another exposure located 1,300 feet to the south. The quartz-sulphide stringer zone is 12 to 18 inches wide. A sample of quartz and sulphides assayed 1.2 oz Au/ton. Samples of quartz-sulphide stringers and carbonatized country rock ranged from 0.27 to 0.43 oz Au/ton. The carbonatized rock itself assayed at trace to 0.03 oz Au/ton (Ref. 1-1944, Ref. 4).

History

1941: Bralorne Mines Ltd.; prospecting, open cuts.

1942-64: Some diamond drilling is reported to have been done sometime during this period.

1964-65: Gunnex Ltd.; silt sampling and prospecting in the general area.

References

1)	MMAR	1944-159
2,3)	GSC	P68-50 p38
		Map 49-1963
4)	Gunnex	#15
5)	Minfile	92F085

9. 3-W (WWW, Corrigan Creek Mine) Au Ag Pb Cu

Geology

Tongues of granodiorite alternate with masses of hybrid diorite; both rock types have been cut by feldspar porphyry dykes. Two quartz veins occupy fissures and contain pockets of pyrite, galena, and sphalerite. Another quartz vein is a mineralized gouge zone that does not everywhere contain quartz.

Economic Features

No. 1 vein measures 300 feet long by 4 to 10 inches wide and is exposed in one adit, four open cuts. A channel sample near the adit assayed 6 oz Au/T, 4 oz Ag/T over 4 inches (1935).

No. 2 vein measures 160 feet long by 8 inches wide. A channel sample assayed 7.3 oz Au/T, 5.3 oz Ag/T over 10 inches (1935).

No. 3 vein measures 308 feet long by 2 to 14 inches wide. A channel sample assayed 1.3 oz Au/T, 0.9 oz Ag/T over 14 inches (1935). Grab samples assayed 7.25 oz Au/T; and 0.18 oz Au/T, 0.2 oz Ag/T (1964).

A recently discovered(?) vein measures 1,000 feet long by 2 inches to 2 feet wide. The best grab sample assayed 1.7 oz Au/T, 3.99 oz Ag/T (1970). A grab sample taken by MPH in 1983 returned 18,000 ppb Au, 3,060 ppm Pb, 12,000 ppm Zn, 11.2 ppm Ag.

Production

1899-1941: A total of 116 T of ore was mined, yielding 471 oz Au, 500 oz Ag, 2,424 lb Pb, and 538 lb Cu.

History

1898-1899: Various owners; staking, prospecting, one adit driven.

1930-1935: Franklin River Gold Mines Ltd.; development, some mining.

1940's: Various, prospecting, sampling.

1963-1964: Gunnex Ltd.; prospecting, sampling.

1970: John Cotowick; limited mining operations.

1974: Corrigan Creek Gold Mines Ltd.; geological mapping (surface and underground), geophysics, trenching, stripping, 50' underground work.

References

1) MMAR 1898-1132, 1899-607, 1906-198, 1921-206, 1922-228, 1926-295, 1927-341, 1930-291, 1932-203, 1933-250, 1935-F49, 1940-27, 1941-27, 1944-59

2) GEM 1970-289, 1974-172

3) BCDM Bull 1 p132

4)	AR	2771
5)	GSC	P68-50 p38
		Map 1963-49
6)	The Miner	October 1935
7)	Minfile	092F141, 092F085

10. Lizard Lake Au Ag Cu

Geology

Sicker Group cherts, andesitic to dacitic fine-grained tuffs or cherty tuffs, and agglomerates overlain by Buttle Lake Formation limestone occur on the eastern part of the property. Small to large dykes and plugs of feldspar and feldspar-hornblende porphyry intrude the Sicker rocks, which are locally heavily pyritized adjacent to the dykes. The dykes are believed to be co-magmatic with the Sicker volcanics. Narrow quartz-carbonate veins containing massive and disseminated pyrite with associated gold values and minor chalcopyrite and malachite outcrop in fairly massive andesite. Gold values and massive sulphides are reported to occur in a tuffaceous pyritic chert layer (pyritic dacitic cherty tuff exhalitive horizon) below the quartz vein-bearing andesite.

Economic Features

Assays of up to 0.13 oz Au/T, 0.70 oz Ag/T, 0.13% Cu over 2 m are reported from the Discovery showing. Values of up to 155 ppb Au are reported from the tuffaceous chert layer. Soil sampling located a triangular area of anomalous Au (up to 3500 ppb Au) with a smaller coincident Cu anomaly SE of Lizard Lake. An airborne geophysical survey located an EM conductor as well as a magnetic anomaly coincident with a large number of weak EM conductors in the area. 1984 soil sampling located 4 major zones of

anomalous Au with coincident, slightly larger As anomalies running subparallel to bedding. The largest anomalies are associated with pyritic dacitic cherty tuff. DDH 84-5 intersected several pyritic cherty tuff exhalative horizons assaying up to 0.033 oz Au/T, 0.105 oz Ag/T over 1.8 m.

History

1963-65: Gunnex Ltd.; regional mapping and prospecting, reconnaissance soil and silt sampling.

1971: Nippon Mining of Canada Ltd.; mapping, soil sampling.

1976: Western Mines Ltd.; mapping, soil sampling.

1978-82: UMEX Inc.; mapping, soil and rock sampling, EM, trenching.

1981: McQuillan Gold Ltd.; Oliver Resources Ltd., Jan Resources Ltd.; airborne VLF-EM, mag survey included the eastern part of Lizard Lake.

1983-85: Noranda Exploration Co. Ltd.; IP, mag, detailed soils, geological mapping, 5 DDH for 544.4 m.

1985: Torhsen Energy Corp.; optioned 49% interest in property.

Comments

Located in Port Alberni watershed. Located within an area to which Noranda Exploration Co. Ltd. holds the base metal rights under option from MacMillan Bloedel.

References

GEM 1971-233

EBC 1976-E111, 1978-E127, 1979-128

AR 6153, 7719, 8568, 8981, 9126, 10401, 10890 (12664, 84-559, 84-1159)

Minfile 92F285

TML 1985 #064

MER 1984 p30

5.0 1985 ASSESSMENT WORK

5.1 Property Geology

Mapping by Muller (1980) indicates that the area east of Mineral Creek is underlain by the Nitinat Formation, while Myra Formation rocks occur on the west side of the creek. The two formations are separated by a major north-trending lineament which occupies the valleys of Yellow Creek to the north, Mineral Creek, and Williams Creek/Lizard Lake to the south. The brief geological survey carried out in October 1985 found no evidence to contradict Muller's work.

Rocks seen in outcrop included basaltic to basandesitic volcanic lapilli tuffs and minor breccias; massive basalt flows (with minor feldspar porphyry), mostly converted to chlorite-carbonate-sericite ± quartz schists; minor chert; and minor quartz-sericite-carbonate-chloritic schists. These are all cut by quartz-veining and numerous small shears and silicified zones (see Figure 5).

On the west side of the creek, the main rock type is green-brown weathering basaltic to basandesitic lapilli-tuff (breccia). The matrix is fine- to medium-grained, medium to dark green chloritized basalt to basandesitic tuff. Fragments averaging 2 mm - 4 mm (maximum 4 cm) comprise up to 30% of the rock. Fragments and matrix appear to have the same composition. This rock is variably foliated throughout, a large portion being converted to chlorite-carbonate-sericite ± quartz schist (greenschist). A few thin bands to 25 cm thick of light-grey weathering light grey quartz-sericite-carbonate ± chlorite schist were seen within the mafic tuffs on the west side. These are all intensely foliated. Pyritic content varies from 0.5% to 12% in an intensely

carbonatized zone just above Mineral Creek (rock sample R1508). Some of these bands are also spotted with a bright green mineral, probably fuchsite, which may make up to 15% of the rock. The quartz-sericite schists may be derived from felsic tuffs.

The rocks here are variably intensely foliated, with foliation striking between 165° and 025 and dipping from steeply east to west. On average, the foliation strikes 160° with a steep easterly dip. This slightly crosscuts the general northerly trend of the major shear zone in Mineral Creek. The foliation has destroyed most of the original structures and textures. The contact between the quartz-sericite ± chlorite schists and the mafic lapilli-tuff appears to crosscut the foliation at a small angle, but this is very uncertain.

Small scale folds were found in float but were not observed in outcrop. Some float showed graded bedding in the tuff, and thin argillaceous laminations, but these were also impossible to find in outcrop.

Rocks seen on the lower east side of the creek seem very similar to rocks on the west side, consisting mainly of mafic lapilli tuff (breccia) and greenschist, as described above. Going uphill to the east, some dark green-brown weathering and moss-covered (apparently massive) basalt outcrops were found. These were medium to dark green and fine- to medium-grained. Minor irregular medium grey cherty (tuff?) lenses were contained in these rocks. Foliation seems less well developed in the east side rocks suggesting that these rocks are more massive overall. This gives some support to Muller's (1980) mapping of Nitinat Formation on the east side, and Myra Formation on the west side of Mineral Creek. A small outcrop(?) of feldspar porphyritic basalt was found, with vague white ? plagioclase phenocrysts to 3 mm making up 10% of the rock. Fine-grained disseminated pyrite

forms from 0% to 3% overall. Float seen on the hillside also included brick red massive jasper (mainly in the south); medium grey-green, fine-grained dacandesitic tuff; feldspar rhyolite, with approximately 10% vague white feldspar crystals to 0.5 mm long in a pale green fine-grained matrix; and abundant white to limonitic weathering vein quartz. Amygdaloidal basalt, reported by Stevenson (1944) was not seen.

The mylonite zone in Mineral Creek was inspected, and found to consist of very rounded and fractured quartz fragments averaging 2-3 mm (maximum 2 cm) in a fine- to medium-grained highly carbonatized, pyritized and silicified matrix. Fragment content varies from approximately 20% to 40%. The zone weathers light limonitic to dark grey-green, and in part is soft and crumbly. Overall orientation appears to be north with a vertical dip, but foliation measured in the creek was 160/vertical. The zone is 15 m wide where inspected. The shear appears to grade into an intensely carbonatized silicifed pyritic zone to the west (samples R1507, 1508). Outcrop ended to the east. On a cut surface, the rock was seen to be very hematitic throughout, with wispy bands of ?epidote to 1 cm thick. The fragments are mainly grey-white fractured quartz. Less than 5% of the fragments are of pale green-grey quartz with dark grey siliceous patches to 0.5 mm. A rare piece of patchily hematized quartz was noted. It seems likely that most of these fragments are derived from old quartz veining that has been milled in the shear zone. However, it is also possible that some of these fragments (the pale green) are of felsic volcanics. The hematitic quartz fragment may be due to hematization along fractures, or may be from an original jaspilitic rock. Thin section study might resolve these questions.

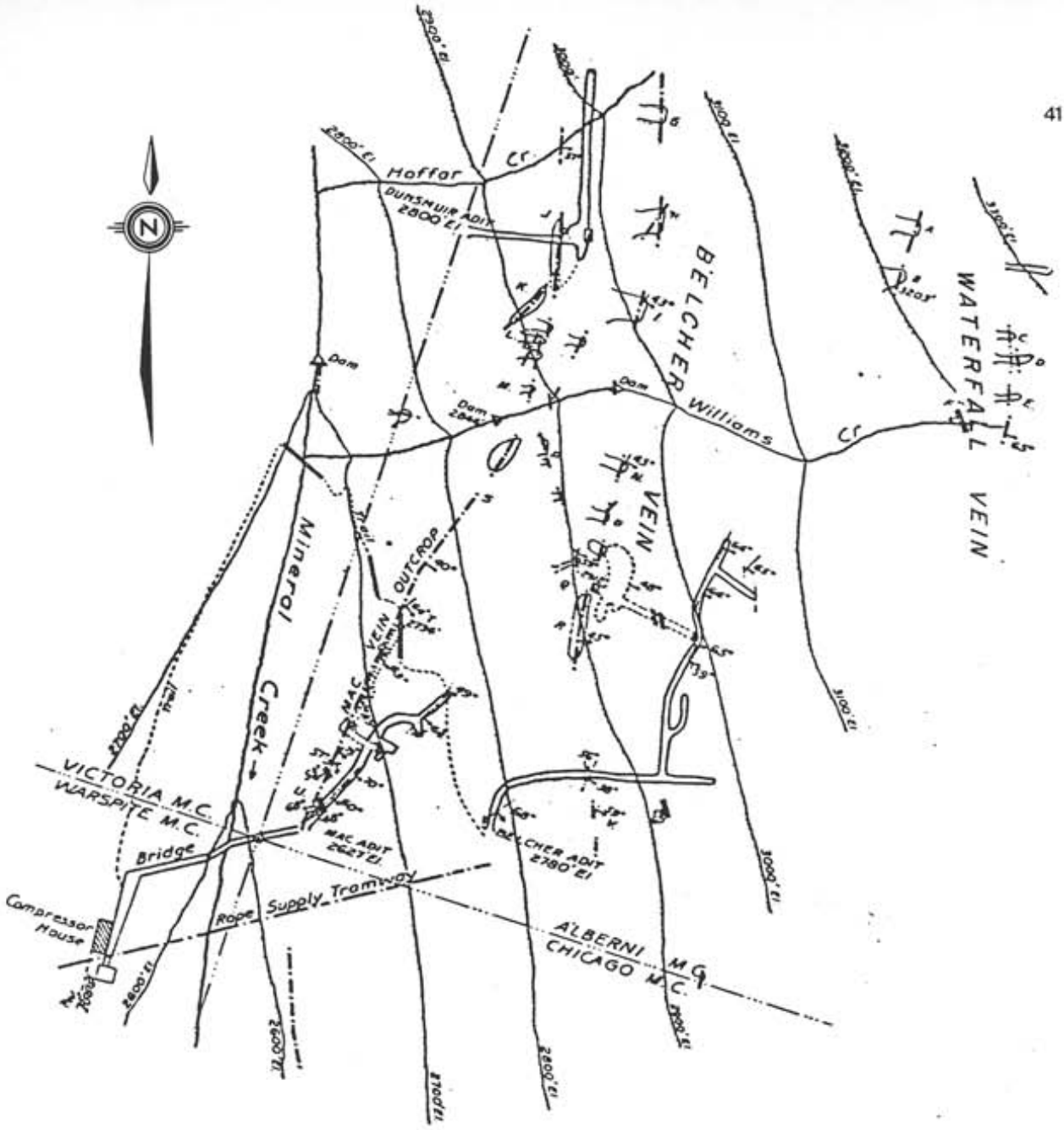
5.2 Mineralization and Rock Geochemistry

Three main gold-bearing quartz veins were uncovered in the old workings. The following is taken mainly from B.C.M.M. Annual Reports for 1934 and 1936 since these contain the best descriptions.

The veins are, from west to east, the Mac (called the Dunsmuir to the north), the Belcher, and the Waterfall (see Figure 6). The veins follow well-developed shear zones on the east side of Mineral Creek and are typical of auriferous quartz veins in the China Creek area. The veins are lensy and consist of 2 generations of quartz. Sulphides, mainly pyrite and arsenopyrite (sphalerite has also been reported), are disseminated in the veins and are associated with high gold and minor silver values. Good specimens of free gold have reportedly been collected from the workings.

The Mac vein, the main working, was traced for 75 m by several open-cuts and 2 adits. Widths range from 7-45 cm, averaging approximately 14 cm. Sixty-three samples taken over the length of the vein averaged 126.5 g Au/t (3.69 oz Au/T) and 15 cm width. The highest gold grade was 684 g/t (20 oz/T). A 40 ton shipment from the Mac Vein returned 99.5 g Au/t (2.9 oz Au/T) and 17.2 g Ag/t (0.5 oz Ag/T). The Mac Vein strikes northeast in the south open-cuts, and north in the northern open-cuts. Dip varies between 40 and 55°E.

The Belcher Vein strikes approximately north and dips 40 to 45°E. It is exposed in several open-cuts and 1 adit over 290 m. Widths range from almost nothing to 1.2 m averaging 15 to 30 cm in the upper adit. Gold content is reportedly low, but higher values (unspecified) were obtained in the shaft and stopes over short lengths and widths. Later sampling of this vein by Keywest



From B.C.M.M. A.R. 1936.

SILVER CLOUD MINES LTD.

PLAN OF WORKINGS

VANCOUVER ISLAND GOLD MINE

ALBERNI MINING DIVISION

Project No.	V 216	By:	K. H.
Scale:		Drawn:	J. S.
Drawing No:	FIGURE 6	Date:	NOV. 1985.

MPH Consulting Limited

Resources in 1973 gave results of from 0.1-9.95 g Au/t (0.003-0.29 oz Au/T), and from 2.1-3.4 g Ag/t (0.06-0.10 oz Ag/T) over 1.5 m lengths.

The Waterfall Vein is exposed by a few trenches over 35 m. This vein strikes north and dips approximately 65° east. Widths range from 8 cm to 75 cm. Vancouver Island Gold Mines obtained low assays except for 2 samples which ran 48 g Au/t (1.4 oz Au/T) over 8 cm and 404 g Au/t (11.8 oz Au/T) over 15 cm.

Richmond (1934) indicated that gold mineralization was concentrated above 2 parallel beds of argillaceous sediments up to 1 m thick whose strike and dips were conformable with the slope of the hillside. The significance of these argillaceous sediments is unknown. They were not seen in outcrop during this visit.

Most of the old trenches that were found this year were buried. The north Belcher adit (Dunsmuir) was found and re-sampled (sample R1517). The quartz vein consisted of bands of grey-white quartz with limonitic banding and minor black weathered sulphides to 5%. Sulphides appeared to consist of euhedral pyrite and ? arsenopyrite to 1 mm diameter. The quartz is abutted on the east by 5 cm of semi-massive black sulphide, and then 9 cm of limonitic gouge, all striking 015/60°E. Fracturing (possibly related to bedding) around this shear is disturbed. The wall-rock on the west (footwall side) is of highly pyritized basic lapilli tuff, with vague fragments to 1 cm making up <5% of the rock. The rock is bleached, silicified and slightly carbonatized, with up to 20% very fine to 2 mm euhedral pyrite cubes. A grab sample (R1516) of this returned 900 ppb Au (check assay - 0.025 oz Au/T), while the quartz vein itself yielded only 280 ppb Au (check assay - 0.006 oz Au/T), indicating that mineralization is not restricted only to the vein.

The carbonatized mylonite zone in Mineral Creek was sampled by the B.C.M.M. (1936). Seventy-nine samples gave values of from nil to 5.5 g Au/t (0.16 oz Au/T) over widths of 1.5 m and 3.0 m. The zone is heavily pyritized with up to 15% disseminated subhedral to euhedral pyrite to 2 mm maximum diameter. The pyrite appears in part to have been crushed. Semi-massive pods of black weathering sulphides occur in the central portion of the zone. Minor arsenopyrite was also seen. Samples taken over this zone by A & M exploration in 1983 gave a result of 1420 ppb Au (0.04 oz/T) over 30 m. Several chip samples over this zone taken this year gave a weighted average of 0.6 g Au/t (0.017 Au oz/T) over 8.75 m with a higher grade zone of 1.8 g Au/t (0.053 oz Au/T) over 3 m. A second chip sample series upcreek from this and apparently the east continuation of the previous samples gave a weighted average of 0.4 g Au/t (0.01 oz Au/T) over 6 m. Altogether, these give a weighted average of 0.5 g Au/t (0.0145 Au oz/T) over 14.75 m. Mineralization apparently drops off sharply on the west side but the limit was not found to the east side of the mylonite zone. While these values are reduced from previous sampling, they are still significant.

A heavy alteration zone over 30 m wide was found along the trail to the west of the mylonite zone in carbonate-chlorite-sericite schist with minor quartz-carbonate-sericite schists. The rock, probably derived from mafic lapilli tuff and felsic tuffs has been heavily carbonatized, bleached and patchily silicified, with heaviest alteration concentrated around intensely foliated zones to 30 cm across. A few areas of grey quartz-carbonate-sericite schist are also heavily (?) fuchsitic. Gold values in this zone reached only 30 ppb and arsenic 830 ppm. Base metals in this zone were anomalous, with up to 24 ppm Pb and 200 ppm Zn.

Samples of quartz-sericite-carbonate schist (felsic tuffs?) from further west gave low results.

A sample of jasper float (R1502) in the south of the property analyzed at 1100 ppb Au (check assay - 0.031 oz Au/T) indicating the possibility of volcanogenic gold mineralization in this area.

An outcrop of greenschist with a 1.5 m pyritic silicified zone was found in the west of the property in the slash area above the beginning of the trail to the old workings. The silicified zone consists of grey-white massive quartz with angular grey siliceous fragments, similar to descriptions of the veins of the old workings. Pyrite, as euhedral cubes to 1 mm, average 3% (locally 5%). A chip sample of this zone returned values of 780 ppb Au (check assay - 0.013 oz Au/T) and 100 ppm As over 1.5 m (sample R63197). This indicates the possibility of auriferous quartz veining further west than has been previously indicated, and warrants further investigation.

A list of rock sample descriptions and Au and As results is included in Appendix II.

Whole rock analysis generally confirmed field identification of the rocks, and the carbonatization (ankeritic?) of the mylonite zone. Computer processing of the whole rock analyses in a program designed to identify the presence alteration patterns that are typical of known volcanogenic base metal and/or gold deposits reveals some moderate to strong anomalies. Sample 1505, a quartz-sericite schist probably representing an altered felsic volcanic is anomalous in both gold and base metal alteration factors despite its low Au and base metal geochemical values. The most anomalous sample, in both gold and base metal alteration factors is 63199, a piece of quartz float. The cause of these anomalies in 63199 is not clear, however, if an outcrop exposure of the quartz can be located, detailed investigation may resolve this matter.

Whole rock analyses are included in Appendix III, the computer evaluation in Appendix IV.

5.3 Geochemical Soil Survey

Analytical Methods

A total of 24 rock and 22 soil samples were taken on the Yellow Group. These were sent to Rossbacher Laboratories in Burnaby for preparation and analysis. Rocks were pulverized, while soils were sieved to -80 mesh. Samples were digested using Nitric-Aqua Regia and analyzed for gold by atomic absorption spectrometer. Seven rocks were also selected for whole rock analysis. Pulps were then forwarded to Chemex Laboratories of North Vancouver for multi-element ICP analysis for 30 elements. Results are included in Appendix III.

Field Programme and Results

A brief soil geochemical sampling survey was run over the Yellow claim; a short E-W line, 125 m long with 25 m sample spacing was run over a previous A & M soil line on the old showings to confirm previous high results. Two lines, 200 m long and 100 m apart were run east from Mineral Creek in the south of the claim to cover a high soil anomaly (4600 ppb Au) found in May 1985 by A & M. Results are shown on Figures 5A and 7. The number of samples taken was insufficient for statistical analysis. While the very high anomalous soil value in the south was not repeated, several high Au (maximum 270 ppb) and As (390 ppm) and some high Ag (1.4 ppm) values were found as much as 175 m above the creek. Sampling density was insufficient to show a significant trend. Little quartz veining or pyritization was seen in outcrop or float here. However, a sample of jasper, with no visible

sulphides, returned 1100 ppb Au. It is possible that this is responsible for the gold in soil anomaly. If the gold anomaly is due to auriferous quartz veining, it could indicate a strike length for the system of over 700 m. It is possible that the lower gold values in soil here is due to slightly deeper over burden. Some anomalous base metal values were found in soils just above south Mineral Creek (Cu - 203 ppm; Pb - 34 ppm; Zn - 220 ppm). These may be due to deeper overburden in the creek valley, but may also be related to the shearing mapped in the creek valley here by Allen (1985). Allen noted some gold and arsenic anomalies associated with the shearing in the south of the claim.

Soil geochemistry results on the A & M lines over the old workings confirmed the high gold values in soil and associated high arsenic. The previous high of 4000 ppb Au was not reached, the maximum value obtained here being 1420 ppb Au. In general, the MPH results confirmed the anomaly outlined here by A & M. The anomalous area of values >50 ppb Au covers 425 m by 300 m, with an inner zone of values >1000 ppb Au over 300 m by 120 m. The anomaly trends north-south. The important features of this anomaly are that: 1) the anomaly is open to the north and south, and; 2) mineralization appears to exist uphill from the known showings.

6.0 RECOMMENDED WORK PROGRAM

6.1 Plan

Phase I exploration of the Yellow Group is designed to follow up the encouraging results of 1981-1985 rock and soil sampling in and around the area of the old Vancouver Island Gold Mine workings. In addition to the known high-grade auriferous quartz veins and low-grade auriferous mylonite zone, indications of possible volcanogenic-type gold (and/or base metal) mineralization have been located.

Phase I will consist of extensions to the soil sampling grid on the east side of Mineral Creek, the establishment of a soil sampling grid on the west side of the creek, and detailed geological mapping, prospecting and rock sampling over the soil sampling grids. The areas between the north and south soil anomalies east of the creek are to be covered with grid lines 100 m apart with sample spacing of 25 m from the creek to the eastern edge of the property. Existing grid lines will be extended and sampled to the eastern edge of the property as well. A small grid will be placed over the area of samples 63197 and 1505 consisting of four 300 m long lines at 100 m spacing with soil samples collected at 50 m intervals. Geological mapping and sampling is to be carried out over both soil grids and over the mylonite zone.

Contingent upon favourable Phase I results, Phase II will consist of magnetometer and VLF-EM surveys over the soil sampling grids, as well as extensions to the grids if necessary. Additional geological mapping and sampling will be carried out in the area(s) of geochemical/geophysical anomalies.

If warranted by Phase II results, Phase III is to consist of IP surveys over anomalous grid areas, trenching of anomalies, and diamond drilling of the highest priority targets generated by Phases I, II, and the early stages of Phase III.

The following detailed cost estimates are for Phase I and Phase II geological, geochemical and geophysical work. All Phase I and Phase II work should be possible to accomplish by foot, however, should helicopter support prove to be necessary for Phase I or Phase II work costs may increase by, say, $1,000-$3,000. An approximate cost estimate for Phase III work is also provided.

6.2 Budget

Phase I

Mobilization/Demobilization		$ 500
Personnel		
Geologist 14 days @ $325	$ 4,550	
Soil Samplers (2) 7 days @ $175	2,450	7,000
Support Costs		
Food and Accommodation		
28 man days @ $40	$ 1,120	
4WD Truck 14 days @ $90	1,260	
Communications 14 days @ $25	350	
Miscellaneous Supplies	250	2,980
Analyses		
40 Rocks (Au ICP) @ $12.20	$ 488	
15 Rocks (Whole Rock) @ $32.00	480	
300 Soil Samples (Au, ICP) @ $10.60	3,180	4,148

Consulting/Supervision		
4 days @ $450	$ 1,800	
Expenses	400	$ 2,200
Report Writing		
Geologist 6 days @ $325	$ 1,950	
Drafting 40 hours @ $18	720	
Materials	500	3,170
		19,998
Administration @ 15% (on $7,988)		1,198
		21,196
Contingency @ 15%		3,179
	Total, say	$ 24,400

Phase IIA

Mobilization/Demobilization	$ 1,000
Geologist 10 days @ $325	3,250
Linecutting 4 men @ $175 for 10 days	7,000
IP Surveys - Men and Equipment	
15 days @ $1,000	15,000

Support Costs		
Food and Accommodation		
120 man days @ $40	$ 4,800	
4WD Truck (3)		
2 @ 10 days, 1 @ 15 days @ $90	3,150	
Miscellaneous Supplies	500	$ 8,450
Trenching		
Drill, powder, steel	$ 1,500	
Technician 10 days @ $250	2,500	
Rock sample analyses	1,000	5,000
Consulting/Supervision		
4 days @ $450	$ 1,800	
Expenses	400	2,200
Report Writing		
Geologist 4 days @ $325	$ 1,300	
Geophysicist 4 days @ $350	1,400	
Drafting 30 hours @ $18	540	
Materials, typing, copying	750	3,990
		45,890
Administration @ 15% (on, say, $14,240)		2,136
		48,026
Contingency @ 15%		7,204
	Phase IIA Total, say	$ 55,000

Phase IIB

Diamond Drilling (including camp, geologist, report, etc.)	450 m @ $165	$ 74,250
Administration @ 15% (on, say, $20,000)		3,000
		77,250
Contingency @ 15%		11,588
	Phase IIB Total, say	$ 89,000
	Phase II Total	$144,000

6.3 Schedule

The following tables are summaries of the projected time requirements for Phases I and IIA. Phase IIB is estimated to take four weeks to complete.

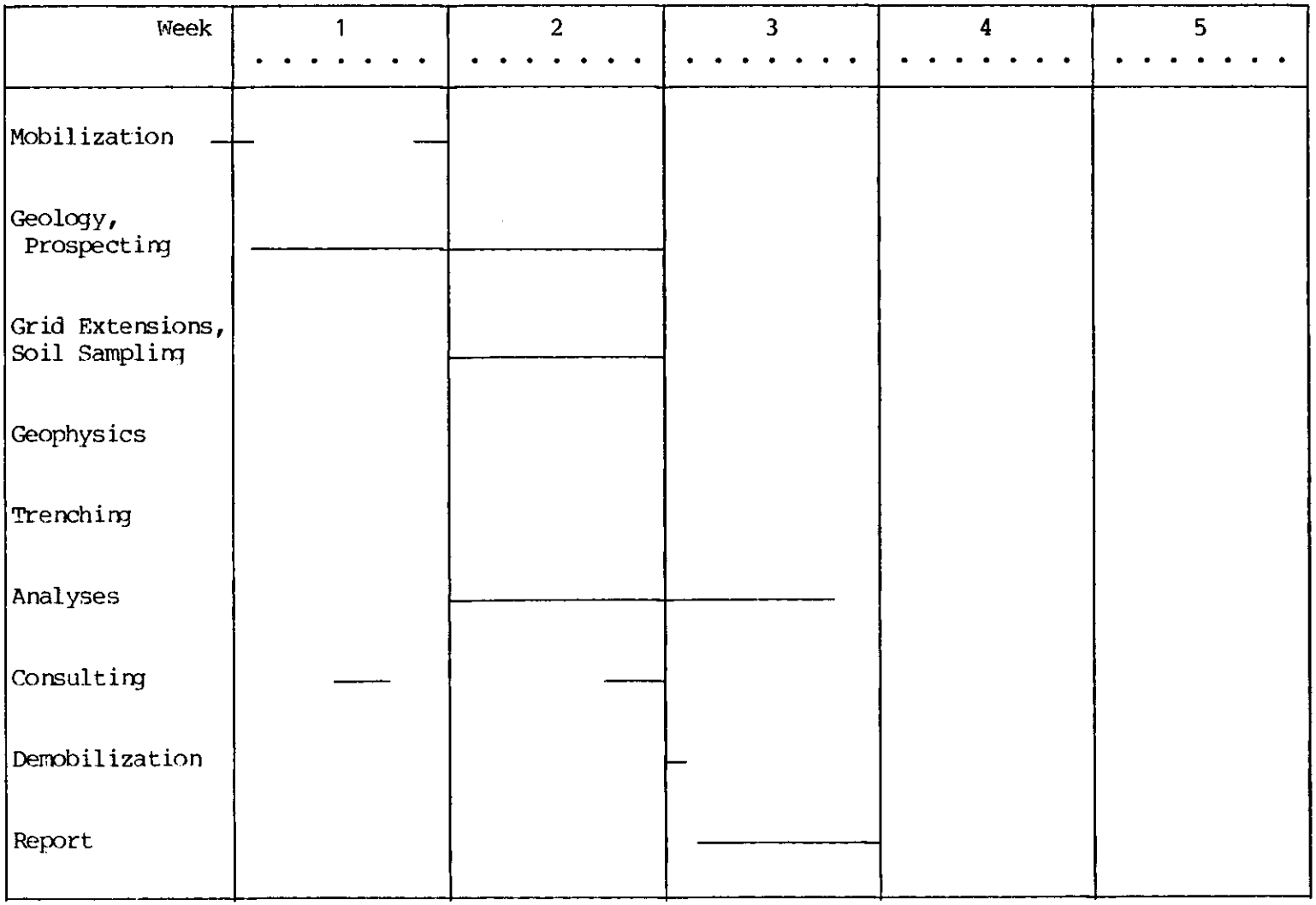


TABLE 1

PHASE I PROJECT SCHEDULE
YELLOW AND YELLOW M CLAIMS

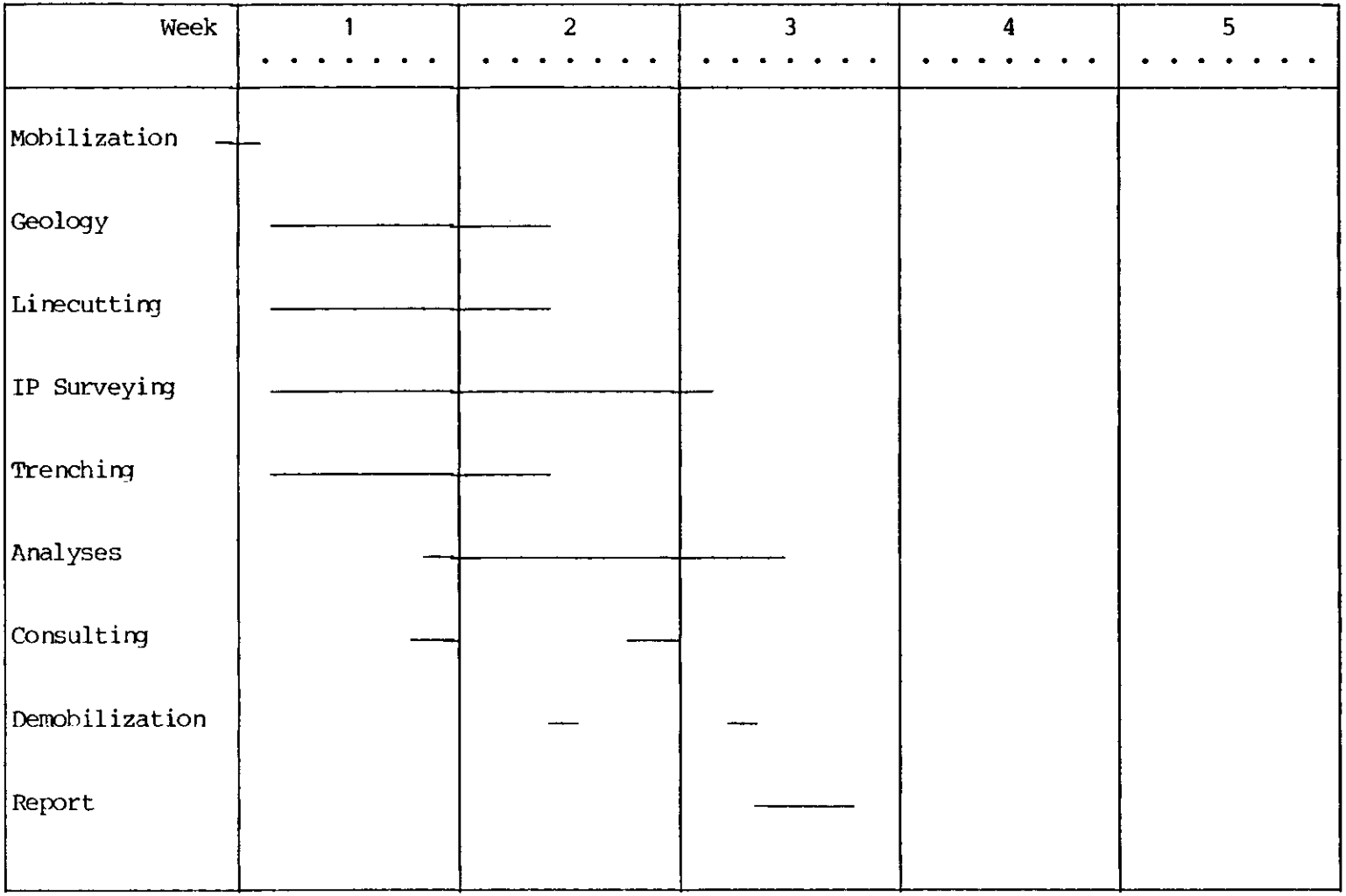


TABLE 2

PHASE IIA PROJECT SCHEDULE
YELLOW AND YELLOW M CLAIMS

7.0 CONCLUSIONS

1. The Yellow Group is underlain by basaltic to basandestic flows, tuffs, and breccias; rhyodacitic tuffs; cherts; and cherty tuffs probably belonging to the Nitinat and Myra Formations of the Paleozoic Sicker Group.

2. The Yellow M claim of the Yellow Group appears to be invalid due to the fact that it was staked over the previously existing Linda 2 claim.

3. Mineralization on the Yellow claim is associated with 3 known quartz veins and a 15 m wide carbonatized, bleached, patchily silicified, and heavily pyritized mylonite zone in Mineral Creek and to the east of the creek. The mylonite zone is assumed to separate the Myra and Nitinat Formations.

4. The results of the 1985 assessment work indicate that mineralization may extend 700 m to the south of the known showings, and that undiscovered mineralization may exist on the west side of the creek. In addition, results of the previous work indicating that anomalous soil geochemical values extend uphill (east) from the area of the old workings have been confirmed. The soil anomaly may be due to undiscovered gold-bearing veins east of the old workings.

5. Based on the results of 1985 assessment work and previous work, further exploration of the Yellow claim consisting of Phase I soil sampling and geological mapping is warranted. Contingent upon favourable results from the previous phase, Phase IIA geophysical surveys and trenching, and Phase IIB diamond drilling may be warranted.

8.0 RECOMMENDATIONS

1. It is recommended that the status of the Yellow M claim be clarified with respect to the apparent overstaking of the Linda 2 claim before any further work is carried out.

2. Phase I work consisting of soil sampling and detailed geological mapping, prospecting, and rock sampling carried out over areas between existing soil anomalies as outlined in Section 6.1 is recommended at an estimated cost of $24,400.

3. Whole rock geochemical analyses of volcanic rock samples and computer evaluation of the analyses is recommended as a means of attempting to determine whether volcanogenic-style gold and/or base metal mineralization may be present.

4. Contingent upon favourable results from Phase I, Phase II is recommended to consist of Phase IIA IP surveys over anomalous grid areas and trenching of surface showings and/or geochemical anomalies followed by Phase IIB diamond drilling of the highest priority geophysical and geological targets. Total cost of Phase II is estimated at $144,000 including $55,000 for Phase IIA and $89,000 for Phase IIB.

5. It is highly recommended that all work be done during the summer, as the extremely steep slopes on the property make working at any other time of year very hazardous.

Respectfully submitted,
MPH Consulting Limited

T. Neale, B.Sc.

T.G. Hawkins, P.Geol.

December 17, 1985

CERTIFICATE

I, T. Neale, do hereby certify:

1. That I am a graduate in geology of The University of British Columbia (B.Sc. 1978).

2. That I have practised as a geologist in mineral exploration for seven years.

3. That the opinions, conclusions, and recommendations contained herein are based on field work carried out by MPH personnel on the property in October 1985, on library research, and on my experience in the area.

4. That I own no direct, indirect, or contingent interest in the subject property, or shares or securities of Silver Cloud Mines Ltd. or associated companies.

T. Neale, B.Sc.

Vancouver, B.C.
December 17, 1985

CERTIFICATE

I, T.E. Gregory Hawkins, do hereby certify:

1. That I am a Consulting Geologist with business offices at 301, 409 Granville Street, Vancouver, B.C. V6C 1T2.

2. That I am a graduate in geology of The University of Alberta, Edmonton (B.Sc. 1973), and of McGill University, Montreal, (M.Sc. 1979).

3. That I have practised within the geological profession for the past twelve years.

4. That I am a Fellow of the Geological Association of Canada and a Professional Geologist registered in the Province of Alberta.

5. That the opinions, conclusions and recommendations contained herein are based on field work carried out on the property in October 1985, and supervised by me.

6. That I own no direct, indirect, or contingent interests in the subject property or shares or securities of Silver Cloud Mines Ltd. or associated companies.

PROFESSIONAL GEOLOGIST ALBERTA T.E. Gregory Hawkins LICENSED TO PRACTISE

T.E. Gregory Hawkins, P.Geol.

Vancouver, B.C.
December 17, 1985

REFERENCES

Allen, D.G. 1985. Geochemical Assessment Report on the Mineral Creek Property (Yellow Claims); for Silver Cloud Mines Ltd., May, 1985.

Carson, D.J.T. 1968. Metallogenic Study of Vancouver Island with Emphasis on the Relationships of Mineral Deposits to Plutonic Rocks; Ph.D. Thesis, Carleton University.

Clapp, C.H. 1912. Southern Vancouver Island; GSC Memoir 13.

Muller, J.E. and D.J.T. Carson. 1969. Geology and Mineral Deposits of Alberni Map-Area, British Columbia (92F); GSC Paper 68-50.

Muller, J.E. 1977. Geology of Vancouver Island (West Half); GSC Open File 463.

Muller, J.E. 1980. The Paleozoic Sicker Group of Vancouver Island, British Columbia; GSC Paper 79-30.

Neale, T. 1984. Compilation of Mineral Occurrences of the Sicker Group, Vancouver Island, British Columbia; for MPH Consulting Limited.

Richmond, A.M. 1934. Vancouver Island Gold Mines Ltd. in B.C. Min. Mines Ann. Rept. 135, p. F2-F4.

Sheppard, E.P. 1975. Assessment Report; Sam Group of Claims. B.C. Min. Mines Assess. Rept. 5443.

Sheppard, E.P. and J. Szakacs. 1974. Prospecting Report on the SAM Group. B.C. Min. Mines Assess. Rept. 4915.

Stevenson, J.S. 1936. Vancouver Island Gold Mines Ltd. in Min. Mines Ann. Rept. 1936, p. F25-F30.

Stevenson, J.S. 1945. Geology and Ore Deposits of the China Creek Area, Vancouver Island, British Columbia; Annual Report of the Minister of Mines of the Province of British Columbia, 1944, pp. A143-A161.

Tschack, R.K. 1976. Report on the Geochemical and Geological Survey of the Tasha-Shannon and Rupert-Dog Claim Groups. B.C. Ministry of Energy Mines & Petroleum Resources, Assessment Report 6153.

Walker, R.R. 1983. Ore Deposits at the Myra Falls Minesite; Western Miner, May, 1983, pp. 22-25.

APPENDIX I

List of Personnel and
Statement of Expenditures

LIST OF PERSONNEL AND STATEMENT OF EXPENDITURES

The following expenses have been incurred on the Yellow Group of claims as defined in this report for the purposes of mineral exploration between the dates of October 21, and 24, 1985.

Professional Services:

K. Heberlein, B.Sc.			
Geologist	3 days @ $275	$825	
T. Neale, B.Sc.			
Geologist	1 day @ 325	325	
T.G. Hawkins, P.Geol.			
Consulting Geologist	1 hr @ 80	80	
			$1,230

Expenditures:

Food and Accommodation		162.71	
Transportation (truck rental, gas, ferry, etc.)		363.96	
Analyses	24 rocks @ $11.95 (Au, ICP)	286.80	
	10 rocks @ 6.00 (Au assay)	60.00	
	7 rocks @ 20.00 (whole rock)	140.00	
	22 soils @ 10.60 (Au, ICP)	233.20	
Report Costs (typing, drafting, copying)		1,185.33	
Miscellaneous (courier, etc.)		34.25	
Administration Fee		305.59	
			2,771.84
			$4,001.84

APPENDIX II

Rock Sample Descriptions and
Lithogeochemical Results

Rock Sample Descriptions and Lithogeochemical Results

Sample No.	Description	Au ppb	As ppm	Other ppm
R63197	Quartz vein/silicified zone (outcrop). 1.5 m + wide. White-gray to limonitic massive quartz with gray angular fragment ghosts. Pyrite to 5% locally, averaging 3% overall, occurs as sub- to euhedral cubes to 1 mm diameter.	780	100	
R63198	Basandesite (trench in outcrop). Medium green fresh and weathered. Fine- to medium-grained. Partly silicified. Well cleaved. No visible sulphides.	10	<10	
R63199	Quartz (float). Massive yellow-white quartz with minor sericitic patches. Euhedral pyrite cubes to 3 mm form 3% of rock. Minor black sulphides on fractures.	670	1180	
R63200	Greenstone (outcrop). Medium to dark green, fine- to medium grained basandesitic rock. Calcareous. Well chloritized. Minor epidote? Patchily silicified. Moderately cleaved. No visible sulphides.	10	<10	
R1501	Rhyolite (float). Pale green, fine-grained siliceous rock with approximately 10% vague white feldspar crystals to 0.5 mm long and green altered mafic specks to 1 mm. Noncalcareous. Contains few fragments of silicified dark green fine-grained ? basalt.	10	<10	
R1502	Jasper (float). Brick red and black massive jasper cut by dirty brown (limonitic) quartzy fractures. No visible sulphides.	1100	190	

Sample No.	Description	Au ppb	As ppm	Other ppm
R1503	Chlorite-sericite-carbonate schist (outcrop). Green-brown weathering. Medium green, fine to medium grained. Andesitic? Cut by lensy white quartz veinlets to 1 cm thick. No visible sulphides.	10	10	
R1504	Chlorite-sericite-carbonate schist. Similar to R1503 with quartz veins to 3 cm thick. No visible sulphides.	10	<10	
R1505	Quartz-sericite schist (outcrop). (Altered felsic volcanic?) Light gray throughout. Fine grained. Very well foliated. Minor carbonate on foliation planes. Approximately 7-10% bright green mineral is probably fuchsite. Pyrite is very finely disseminated, ~5% overall.	10	<10	
R1506	Altered basic lapilli tuff (float). Dark green-brown weathering. Fresh surface patchy medium to dark green, heavily chloritized and epidotized medium- to coarse-grained basic tuff with approximately 30% larger fragments. Fragments average 3-4 mm, rarely reaching 1 cm. Composition of fragments is basaltic. Vague anhedral feldspar crystal (?) fragments to 3 mm make up ~3% of rock. Euhedral pyrite is finely disseminated throughout, maximum 1 mm cubes.	10	<10	
R1507	Altered basic (lapilli?) tuff/greenschist (outcrop). Weathers green-brown. Variably foliated such that most textures are destroyed. Heavily carbonatized and patchily silicified throughout to light to medium green colour. In places see faint outlines of angular fragments to 4 mm, averaging 1 mm, which look	10	<10	Cr 394

Sample No.	Description	Au ppb	As ppm	Other ppm
	like lapilli. Dark green chloritic lenses to 1 cm x 2 mm. Minor fuchsite (?) specks in more intensely altered areas. Alteration intensity varies over 30 m of outcrop. Very finely disseminated pyrite makes up 10% of the rock.			
R1508	Quartz-sericite-carbonate-chlorite schist (outcrop). (Same as R1507.) Limonitic weathered. Cut surface is lensy banded light-gray, white, and pale green. Minor epidote. Finely disseminated pyrite and black sulphides, concentrated in carbonate-sericite bands, make up 10-12% of the rock. Most pyrite is <0.25 mm, but there are rare anhedral grains to 1 mm. This is probably derived from a felsic tuff.	30	830	Pb 24 Zn 200
R1509	Carbonated silicified mylonite zone (outcrop). (Chip sample - 6.75 m across foliation). Limonitic weathering. Heavy silicification and carbonatization has destroyed textures. Rock is patchy yellowish-gray-green-white. Pyrite forms up to 15% of the rock overall as very fine specks to 1-2 mm euhedral to anhedral crystals. Minor arsenopyrite? A zone in the centre of the creek contains angular siliceous fragments in a silicified, pyritized matrix.	660	340	Cr 263
R1510	Carbonatized silicified mylonite zone (outcrop). (Chip sample - 3 m across foliation, sub-sample of R1509). Similar to R1509, with white massive quartz veining to 3 cm thick and abundant black sulphides throughout.	1700	450	

Sample No.	Description	Au ppb	As ppm	Other ppm
R1511	Carbonatized silicified mylonite zone (outcrop). (Chip sample 2 m across foliation. Continuation of R1509 to west.) Pyrite is 15-20% of rock with massive fine-grained lenses. Trace amounts of a bluish metallic mineral may be specularite?	140	410	Ag 1.2 Cr 916 Ni 296
R1511A	Carbonatized silicified mylonite zone (outcrop). (Chip sample - 3 m across foliation. Continuation of R1511 to west.) Less heavily altered. Looks like a basic tuff, medium grained, gray-green, with quartz-epidote veining and minor disseminated pyrite.	10	250	Cr 1262 Ni 363
R1512	Semi-massive sulphide pod in mylonite zone (outcrop). (Chip sample - 3 m across foliation.) Limonite weathered. Semi-massive black fine sulphides in a fine to coarse fragmental matrix. Contains 30% larger subangular-rounded fragments to 2 cm of white-gray highly fractured quartz. Rare clast of jaspilitic quartz. Some siliceous fragments are pale green, fine-grained.	580	1390	Ag 1.0
R1514	Bedded fhyolitic tuff, cherty tuff and volcanic sandstone (float). Thin to medium bedded pale gray-green very fine-grained cherty and rhyolitic tuffs, and medium green, medium- to coarse-grained ? volcanic sandstone. Pyrite, ~1/2-1% of rock, is very finely disseminated throughout.	10	<10	
R1515	Semi-massive sulphide pod in mylonite zone (outcrop). (Grab sample of R1512.) Weathers limonitic to green-brown. Fresh surface is reddish-brown with wispy greenish	500	1000	Ag 1.0

Sample No.	Description	Au ppb	As ppm	Other ppm
	bands to 1 cm parallel to foliation (epidote?) Contains 30% white-gray highly fractured subround to subangular quartz fragments to 1 cm, average 2 mm, in a fine- to medium-grained hematized and calcareous matrix. Some fragments are pale green. Rare hematitic quartz fragment, may be from a jasper horizon. Abundant sulphides, mainly pyrite, are very finely disseminated throughout matrix and fragments. Some subhedral cubes are up to 1 mm, and look crushed.			
R1516	Basic (lapilli) tuff, highly altered (outcrop - stope wall). Medium to coarse grained green-gray ?tuff with vague fragments (<5%) to 1 cm maximum visible on weathered surface only. Rock is bleached, silicified, slightly carbonatized and heavily pyritized with up to 20% very fine grained to 2 mm euhedral cubes of pyrite. No other sulphides are visible. Moderately well fractured to well fractured.	900	2750	
R1517	Quartz-sulphide vein (outcrop - stope wall). Banded brown and white/massive/lensy quartz vein with minor pyrite to 5% and ? arsenopyrite; euhedral crystals to 1 mm. Vein is 25 cm across in widest part, but apparently thickens downwards and to south? (Sample from north end of stope.) Approximately 5 cm on east side of vein is semi-massive black sulphide. Next to this is approximately 9 cm of brown limonitic gouge at same angle as vein (015/60°E).	280	360	

Sample No.	Description	Au ppb	As ppm	Other ppm
R1518	Basic (crystal) tuff (outcrop-trench). Medium grained, medium green basic tuff, with up to 15% pyrite on fracture faces as euhedral cubes averaging 1 mm (4 mm maximum). Overall pyrite content ~5%. The basic tuff contains a 3-5 cm white quartz vein with ~1% pyrite cubes; a second vein above this is 20 cm thick with 1% pyrite cubes. The veins are approximately parallel to foliation/cleavage. Cut surface shows abundant off-white to pale green broken ? feldspar crystals averaging <0.5 mm (maximum 2-3 mm) with green rims. The rock is slightly calcareous.	30	250	
R1519	Ankeritic-fuchsitic quartz-sericite schist (float). Light gray pink, very well foliated rock with approximately 5-7% bright green spots (to 3 mm maximum) on foliation planes; weathers limonitic. Trace very fine pyrite is on fractures. Possibly comes from an ouctrop near-by. The foliation is cut by car-bonate stringers to 3 mm thick which make up <5% of the rock.	10	300	

A & M 1983-1985 Rock Sample Results

Sample No.	Description	Au ppb	As ppm
GT 1	7-10 cm quartz vein - upper Belcher adit.	0.008*	78
GT 2	7-10 cm quartz-py vein Belcher adit.	0.560*	1400
GT 3	15-18 cm quartz vein - upper Belcher adit.	0.015*	176
GT 4	12 cm quartz vein 10 m in from portal upper Belcher adit.	0.046*	180
GT 5	22 cm quartz vein 9 m in from portal upper Belcher adit.	0.036*	144
GT 7	13 cm quartz vein 5 m in from portal upper Belcher adit.	0.016*	126
GT 8	46 cm quartz vein open stope above upper Mac adit.	0.270*	640
GT 9	25 cm quartz vein open stope above upper Mac adit.	0.080*	3000
GT 10	24 cm quartz vein open stope above upper Mac adit.	0.160*	640
GT 11	25 cm quartz vein open stope above upper Mac adit.	0.010*	520
AT 134	Bleached greenstone with abundant py- upper shear adit dump.	1500	180
AT 135	Silicified greenstone with abundant py.	1560	510
AT 136	Silicified greenstone with abundant py.	360	104
AT 137	Silicified greenstone with abundant py - lower shear adit dump.	870	120
AT 138	Silicified greenstone with abundant py.	2610	1060

*Au values in oz/ton

Sample No.	Description	Au ppb	As ppm
XT 1	Semi-continuous chip sample across 47 m of exposed veined mylonite shear zone containing 95% quartz veining in individual chips with trace pyrite.	110	64
XT 7	Chip sample across 10 cm by 2 m exposed fault in highly altered andesite with very fine grained pyrite.	940	160
XT 8	Chip sample across 30 m of brown weathering cataclastic and mylonitic andesite on both sides of Mineral Creek. This rock is highly silicified and intensely fractured with up to 2% disseminated pyrite.	1420	160
XT 9	Chip sample across 3 m of fresh and silicified andesite with rhythmically banded quartz veins.	240	56
XT 10	Chip sample across 1 m by 30 cm area of silicified andesite and quartz vein with minor amount of green fuchsite and 1% pyrite.	1440	1400
XT 18	Continuous and semi-continuous chip sample across 2.0 m of rusty weathering sheared and granulated andesite with trace pyrite. Microbrecciated quartz material in a gray matrix with random orientation.	1000	680
XT 20	Continuous channel sample across 1.0 m of same sheared andesite outcrop as XT 18 but 1 m to the west in a pyritic zone with 3% to 5% disseminated pyrite.	2800	1120
AT 35	Phyllite - locally sheared and veined with pyrite-bearing quartz.	170	228

APPENDIX III

Certificates of Analysis/Assay

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY. B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V216
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 85452
INVOICE#: 6071
DATE ENTERED: NOV.6.1985
FILE NAME: MPH85452
PAGE # : 1

PREFIX	SAMPLE NAME	PPB Au
A	R 1501	10
A	1502	1100
A	1503	10
A	1504	10
A	1505	10
A	1506	10
A	1507	10
A	1508	30
A	1509	660
A	1510	1700
A	1511	140
A	1511A	10
A	1512	580
A	1513	140
A	1514	10
A	1516	900
A	1517	280
A	1518	30
A	1519	10
S	L1 0+25E	1240
S	0+50E	460
S	0+75E	750
S	1+00E	1040
S	1+25E	450
S	L2 0+00	60
S	0+25E	10
S	0+50E	30
S	0+75E	180
S	1+00E	10
S	1+25E	10
S	1+50E	10
S	1+75E	270
S	2+00E	80
S	L2A +50mN	10
S	L3 0+30E	90
S	0+50E	20
S	0+75E	230
S	1+00E	30
S	1+50E	20
S	1+75E	10

CERTIFIED BY : F. Rossbacher

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY. B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V216
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 85452
INVOICE#: 6071
DATE ENTERED: NOV.6.1985
FILE NAME: MPH85452
PAGE # : 2

PRE FIX	SAMPLE NAME	PPB Au
S	L3 2+00E	10
A	R 63197	780
A	63198	10
A	63199	670
A	R 63200	10

CERTIFIED BY : J. Rossbach

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V216
TYPE OF ANALYSIS: ASSAY

CERTIFICATE#: 85452.B
INVOICE#: 6081
DATE ENTERED: 85-11-13
FILE NAME: MPH85452.B
PAGE # : 1

PRE FIX	SAMPLE NAME	oz/t Au
A	R1502	0.031
A	1509	0.023
A	1510	0.058
A	1511	0.004
A	1512	0.022
A	1513	0.003
A	1516	0.025
A	R1517	0.006
A	R63197	0.013
A	R63199	0.021

CERTIFIED BY : F. Rossbacher

ROSSBACHER LABORATORY LTD.
2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V 216
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 85480
INVOICE#: 6101
DATE ENTERED: NOV. 18.1985
FILE NAME: MPH85480
PAGE # : 1

PRE FIX	SAMPLE NAME	PPB Au
T	R 1515	500

RECEIVED NOV 19 1985

CERTIFIED BY : R. Rossbacher

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY. B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V216
TYPE OF ANALYSIS: ASSAY

CERTIFICATE#: 85452.A
INVOICE#: 6073
DATE ENTERED: 85-11-06
FILE NAME: MPH85452.A
PAGE # : 1

PREFIX	SAMPLE NAME	% SiO2	% Al2O3	% MgO	% Fe2O3	% CaO	% K2O	% Na2O	% TiO2	% MnO
A	R1501	68.0	15.0	2.1	4.5	3.0	0.9	3.9	0.6	0.1
A	R1503	60.0	11.9	4.0	7.2	7.2	0.9	0.6	0.7	0.2
A	R1505	77.0	14.1	1.0	1.8	0.3	4.9	0.3	0.1	0.1
A	R1506	48.0	16.4	6.0	11.3	9.6	1.0	1.7	0.9	0.2
A	R1508	45.0	13.2	4.9	7.7	8.3	3.1	0.7	0.7	0.2
A	R1518	45.0	15.1	7.6	7.9	8.2	2.7	0.2	0.5	0.2
A	63199	82.0	4.8	2.0	3.8	3.6	1.0	0.2	0.3	0.1

PREFIX	SAMPLE NAME	% LOI
A	R1501	2.3
A	R1503	7.9
A	R1505	2.4
A	R1506	3.7
A	R1508	15.3
A	R1508	11.8
A	63199	4.9

CERTIFIED BY : F. Rossbacher

Chemex Labs Ltd.

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Telephone:(604) 984-0221
Telex: 043-52597

*Analytical Chemists *Geochemists *Registered Assayers

CERTIFICATE OF ANALYSIS

TO : ROSSBACHER LABORATORY LIMITED

2225 SOUTH SPRINGER AVENUE
BURNABY, B.C.
V5B 3N1

CERT. # : A8518039-001-A
INVOICE # : I8518039
DATE : 8-NOV-85
P.O. # : NONE
9216 CERT. 85452

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
R 1501	2.42	0.2	<10	50	<0.5	<2	1.66	<0.5	17	141	12	2.92	<10	0.15	10	1.19	680	<1	0.05	22	1140	4	<10	175	0.29	<10	<10	98	<10	40	--	--
R 1502	0.14	0.4	190	20	<0.5	<2	0.04	<0.5	2	258	26	4.61	<10	<0.01	<10	0.07	384	<1	<0.01	11	100	<2	<10	2	<0.01	<10	<10	6	<10	<10	--	--
R 1503	3.74	0.2	10	30	<0.5	<2	4.80	<0.5	28	113	20	4.82	20	0.13	<10	2.54	1056	<1	<0.01	48	530	4	<10	76	0.13	<10	<10	143	<10	70	--	--
R 1504	2.32	0.2	<10	20	<0.5	<2	1.15	<0.5	14	93	14	4.05	10	0.05	20	1.31	812	<1	0.04	8	1620	8	<10	169	0.24	<10	<10	60	<10	70	--	--
R 1505	0.84	0.2	<10	290	<0.5	<2	0.08	<0.5	2	28	<1	0.34	<10	0.47	20	0.15	201	<1	<0.01	8	200	4	<10	3	<0.01	<10	<10	1	<10	<10	--	--
R 1506	3.12	0.2	<10	110	<0.5	<2	2.15	<0.5	34	133	47	5.26	<10	0.08	<10	2.60	763	<1	0.07	36	830	6	<10	196	0.43	<10	<10	183	<10	40	--	--
R 1507	3.94	0.2	30	30	<0.5	<2	6.34	<0.5	38	394	80	5.37	30	0.03	<10	4.33	1089	<1	0.01	110	990	6	<10	113	<0.01	<10	<10	182	<10	50	--	--
R 1508	1.07	0.6	830	50	<0.5	<2	6.51	<0.5	36	102	145	5.80	30	0.24	<10	3.36	955	<1	<0.01	68	870	24	20	168	<0.01	<10	<10	67	<10	200	--	--
R 1509	1.36	0.4	340	110	<0.5	<2	7.79	<0.5	35	263	45	4.79	30	0.22	<10	4.05	1054	<1	<0.01	150	630	14	10	216	<0.01	<10	<10	42	<10	50	--	--
R 1510	0.62	0.4	450	90	<0.5	<2	7.83	<0.5	31	111	54	4.85	30	0.25	<10	3.37	946	<1	<0.01	116	690	16	10	220	<0.01	<10	<10	18	<10	50	--	--
R 1511	2.75	1.2	410	60	<0.5	<2	8.39	<0.5	51	916	62	5.42	40	0.10	<10	7.07	1133	<1	<0.01	296	470	12	20	328	<0.01	<10	<10	91	<10	60	--	--
R 1511 A	3.03	0.2	250	20	<0.5	<2	7.85	<0.5	51	1262	16	4.93	30	<0.01	<10	7.86	1053	<1	<0.01	363	330	4	10	307	<0.01	<10	<10	102	<10	50	--	--
R 1512	0.53	1.0	1390	60	<0.5	4	7.37	<0.5	37	95	51	5.36	30	0.16	<10	3.72	998	<1	<0.01	147	570	26	20	264	<0.01	<10	<10	19	<10	90	--	--
R 1513	1.89	0.6	360	50	<0.5	<2	8.35	<0.5	42	469	53	5.12	30	0.08	<10	5.48	1085	<1	<0.01	216	620	12	10	264	<0.01	<10	<10	61	<10	60	--	--
R 1514	3.49	0.4	<10	210	<0.5	<2	2.74	<0.5	27	19	53	6.24	20	0.42	10	2.22	839	<1	0.01	14	490	6	<10	56	<0.01	<10	<10	110	<10	70	--	--
R 1516	0.78	0.4	2750	120	<0.5	<2	2.94	<0.5	18	60	29	5.81	20	0.37	<10	1.09	900	<1	0.01	13	1170	14	<10	95	<0.01	<10	<10	13	<10	70	--	--
R 1517	0.17	0.2	360	20	<0.5	<2	1.34	<0.5	2	260	<1	0.80	<10	0.03	<10	0.06	316	<1	<0.01	10	60	2	<10	26	<0.01	<10	<10	4	<10	<10	--	--
R 1518	3.71	0.4	250	60	<0.5	<2	5.91	<0.5	38	229	5	5.13	20	0.20	<10	4.88	958	<1	<0.01	98	1310	2	<10	232	<0.01	<10	<10	102	<10	40	--	--
R 1519	0.59	0.6	300	30	<0.5	<2	8.29	<0.5	38	136	48	5.36	20	0.24	<10	3.53	1146	<1	<0.01	197	510	12	20	306	<0.01	<10	<10	34	<10	50	--	--
L1 0+25E	3.20	0.8	970	190	<0.5	<2	0.41	<0.5	40	144	99	6.38	10	0.09	10	1.30	2884	<1	<0.01	70	1700	12	<10	25	<0.01	<10	<10	113	<10	60	--	--
L1 0+50E	3.85	0.4	240	250	<0.5	<2	0.71	<0.5	35	106	131	7.66	10	0.14	20	0.91	1744	<1	<0.01	58	1070	8	<10	43	0.02	<10	<10	146	<10	100	--	--
L1 0+75E	4.25	0.4	270	160	<0.5	<2	0.60	<0.5	29	71	58	6.07	10	0.08	10	1.34	1651	<1	<0.01	37	1080	6	<10	52	0.09	<10	<10	145	<10	70	--	--
L1 1+00E	3.20	0.8	1220	130	<0.5	<2	0.45	<0.5	31	109	57	7.67	10	0.08	10	1.42	1066	<1	<0.01	43	1300	12	<10	46	0.06	<10	<10	112	<10	80	--	--
L1 1+25E	5.81	0.6	140	200	<0.5	<2	0.78	<0.5	46	198	78	5.62	10	0.03	10	2.33	2117	<1	<0.01	100	1980	6	<10	72	0.16	<10	<10	186	<10	90	--	--
L2 0+00	3.29	0.8	970	90	<0.5	<2	0.63	<0.5	44	81	203	8.00	10	0.11	40	1.66	2719	<1	<0.01	43	2330	34	<10	20	<0.01	<10	<10	94	<10	220	--	--
L2 0+25E	4.09	0.4	270	130	<0.5	<2	0.33	<0.5	35	139	83	6.03	10	0.09	20	1.59	1402	<1	0.01	53	1560	10	<10	22	0.02	<10	<10	118	<10	110	--	--
L2 0+50E	5.67	0.4	80	180	<0.5	<2	0.15	<0.5	37	203	86	5.93	10	0.09	10	1.48	475	<1	0.01	92	970	<2	<10	16	0.01	<10	<10	140	<10	110	--	--
L2 0+75E	4.52	1.4	390	190	<0.5	<2	0.13	<0.5	46	208	66	6.27	10	0.14	<10	1.35	550	<1	0.01	169	790	2	<10	12	<0.01	<10	<10	103	<10	80	--	--
L2 1+00E	4.46	0.2	80	150	<0.5	<2	0.68	<0.5	26	120	22	4.53	10	0.06	10	1.17	677	<1	0.01	76	950	<2	<10	75	0.05	<10	<10	115	<10	90	--	--
L2 1+25E	5.32	0.2	<10	150	<0.5	<2	0.75	<0.5	31	154	34	5.19	20	0.09	10	2.01	1132	<1	0.01	71	1130	4	<10	80	0.17	<10	<10	148	<10	80	--	--
L2 1+50E	3.64	0.2	20	200	<0.5	<2	0.47	<0.5	26	112	14	4.38	20	0.06	10	1.24	679	<1	<0.01	58	1040	<2	<10	48	0.12	<10	<10	118	<10	80	--	--
L2 1+75E	5.12	0.4	70	140	<0.5	<2	0.39	<0.5	41	198	98	7.22	20	0.07	10	3.24	666	<1	<0.01	121	750	<2	<10	38	0.22	<10	<10	154	<10	100	--	--
L2 2+00E	4.63	0.6	150	150	<0.5	<2	0.47	<0.5	29	102	41	6.09	20	0.05	10	1.41	506	<1	<0.01	76	1120	2	<10	59	0.17	<10	<10	134	<10	100	--	--
L2A +50MN	4.58	0.2	30	240	<0.5	<2	0.56	<0.5	43	136	57	6.39	20	0.04	10	2.50	1763	<1	<0.01	139	720	6	<10	51	0.15	<10	<10	125	<10	100	--	--
L3 0+30E	5.26	0.4	180	150	<0.5	<2	0.49	<0.5	58	249	107	6.98	10	0.12	10	3.06	1904	<1	<0.01	118	1060	6	<10	28	0.04	<10	<10	165	<10	100	--	--
L3 0+50E	5.06	0.2	80	110	<0.5	<2	0.64	<0.5	58	432	165	6.80	10	0.06	10	3.68	2002	<1	<0.01	133	1640	8	<10	30	0.12	<10	<10	174	<10	140	--	--
L3 0+75E	5.20	0.4	120	120	<0.5	<2	0.27	<0.5	46	250	135	6.91	10	0.09	10	2.69	816	<1	<0.01	109	1040	2	<10	16	0.04	<10	<10	161	<10	110	--	--
L3 1+00E	4.96	0.4	120	240	<0.5	<2	0.32	<0.5	46	252	83	6.15	10	0.08	10	2.89	1905	<1	<0.01	111	1030	8	<10	15	0.06	<10	<10	157	<10	80	--	--
L3 1+50E	5.11	0.2	30	150	<0.5	<2	0.43	<0.5	38	254	37	5.15	20	0.07	10	1.81	746	<1	<0.01	142	1700	4	10	33	0.10	10	10	122	<10	110	--	--
L3 1+75E	3.21	0.2	60	240	<0.5	<2	0.70	<0.5	36	114	19	4.60	10	0.03	10	0.91	3314	<1	<0.01	77	2140	12	<10	40	0.12	10	<10	95	<10	110	--	--

Certified by

Chemex Labs Ltd.

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Telephone:(604) 984-0221
Telex: 043-52597

*Analytical Chemists *Geochemists *Registered Assayers

CERTIFICATE OF ANALYSIS

TO : ROSSBACHER LABORATORY LIMITED

2225 SOUTH SPRINGER AVENUE
BURNABY, B.C.
V5B 3N1

CERT. # : A8518039-002-A
INVOICE # : I8518039
DATE : 8-NOV-85
P.O. # : NONE
V216 CERT. 85452

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
L3 2+00E	3.78	0.2	30	110	<0.5	<2	0.63	<0.5	31	92	13	4.60	20	0.02	10	1.16	1728	<1	<0.01	61	1160	<2	<10	56	0.28	<10	<10	112	<10	80	--	--
63197	0.31	0.2	100	10	<0.5	<2	0.05	<0.5	2	226	20	2.75	<10	<0.01	<10	0.10	175	<1	<0.01	67	50	6	<10	4	<0.01	<10	<10	8	<10	140	--	--
63198	4.13	0.2	<10	130	<0.5	<2	2.71	<0.5	38	278	35	5.40	30	0.06	<10	4.80	983	<1	0.01	101	690	2	<10	91	0.26	<10	<10	180	<10	70	--	--
63199	0.95	0.4	1180	30	<0.5	<2	2.74	<0.5	7	220	<1	2.24	10	0.11	<10	1.12	513	<1	<0.01	9	320	4	<10	42	<0.01	<10	<10	32	<10	10	--	--
63200	3.90	0.2	30	60	<0.5	<2	2.74	<0.5	43	191	58	4.81	20	0.11	<10	2.85	948	<1	0.02	153	1390	4	<10	17	0.29	<10	<10	179	<10	70	--	--

Chemex Labs Ltd.

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Telephone:(604) 984-0221
Telex: 043-52597

*Analytical Chemists *Geochemists *Registered Assayers

CERTIFICATE OF ANALYSIS

TO : ROSSBACHER LABORATORY LIMITED

2225 SOUTH SPRINGER AVENUE
BURNABY, B.C.
V5B 3N1

CERT. # : A8518391-001-A
INVOICE # : I8518391
DATE : 19-NOV-85
P.O. # : NONE
V216

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm		
R1515	0.98	1.0	1000	40	<0.5	<2	7.44	<0.5	42	329	93	5.02	20	0.11	<10	4.12	911	<1	<0.01	200	470	22	30	244	<0.01	<10	<10	30	<10	70	--	--

RECEIV

APPENDIX IV

Computer Evaluation of
Whole Rock Analyses

EVALUATION SUMMARY

SAMPLE	Base Metals EVALUATION			Gold EVALUATION		
1501	+ ※	-	-	— ※ ※	-	-
1503	+ ※	-	-	— ※ ※ ※ ※ ※		-
1505	+ ※ ※ ※	-	-	— ※ ※ ※ ※ ※		-
1506	— ※ ※	-	-	— ※ ※	-	-
1508	—			— ※ ※ ※	-	-
1518	—			— ※ ※ ※	-	-
63199	+ ※ ※ ※ ※	-	-	— ※ ※ ※ ※	※ ※ ※	-

— "less favourable geologic environment"

\+ "favourable geologic environment"

※ anomalous geochemical factors present (10% of factors per symbol)

$$
>>>>>>>>>>>>>>>>>>>1501 <<<<<<<<<<<<<<<<<<
$$

JENSEN CLASSIFICATION: Tholeiitic Dacite

IRVINE/BARAGAR CLASSIFICATION: Calc-Alkaline Andesite Subalkaline

SiO2 CLASSIFICATION: Dacite (65.81% SiO2)

TiO2 CLASSIFICATION: Dacite

****

Rock is slightly soda enriched vis-a-vis potash

************************ VOLCANOGENIC Base Metals EVALUATION ************************

Residuals:

MgO	K2O	CaO	Na2O	Fe2O3	SiO2	TAAS
-.17	-.22	-1.49	-.13	1.40	.03	30.30

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
-.90	-4.72	-4.63	2.43 *******	.75

------------------------------ Volcanogenic Au Evaluation ------------------------------

Na2O(R)	K2O(%)	Au	As	Per. Index	CO2/CaO
-.13	.87	10.00	5.00	1.48	.26 EST

SS	RT	LATITUDE	DEPARTURE	COMMENTS
0.	0.	0.00	0.00	

SiO2	Al2O3	Fe2O3	FeO	CaO	MgO	Na2O	K2O
65.81	14.52	4.36	2.83	2.90	2.03	3.77	.87
TiO2	MnO	P2O5	LOI	CO2	Cr2O3	Zr	Sr
.58	.10	0.00	2.23	0.00	141.00	0.00	175.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	50.00	5.00	5.00	0.00	12.00	40.00	4.00
Ni	Au	Ag	S	As	Sb	X	Y
22.00	10.00	.20	0.00	5.00	5.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated

$ $
>>>>>>>>>>>>>>>>>>>>>>1503 <<<<<<<<<<<<<<<<<<
$ $

JENSEN CLASSIFICATION: Calc-Alkaline Basalt

IRVINE/BARAGAR CLASSIFICATION: Tholeiitic Basalt Alkaline

SiO2 CLASSIFICATION: Dacite (64.59% SiO2)

TiO2 CLASSIFICATION: Dacite

****

************************* VOLCANOGENIC Base Metals EVALUATION *************************

Residuals:

MgO	K2O	CaO	Na2O	Fe2O3	SiO2	FAAS
.95	-.28	1.38	-3.42 *******	-.49	2.83	38.58

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
.83	-5.30	-6.59	-.80	.58

------------------------------ Volcanogenic Au Evaluation ------------------------------

Na2O(R)	K2O(%)	Au	As	Per. Index	CO2/CaO
-3.42	.75	10.00	10.00	1.66	.37 EST

SS	RT	LATITUDE	DEPARTURE	COMMENTS
0.	0.	0.00	0.00	

SiO2	Al2O3	Fe2O3	FeO	CaO	MgO	Na2O	K2O
64.59	11.83	1.51	4.04	6.04	3.36	.56	.75
TiO2	MnO	P2O5	LOI	CO2	Cr2O3	Zr	Sr
.59	.17	0.00	6.63	0.00	113.00	0.00	76.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	30.00	5.00	5.00	0.00	20.00	70.00	4.00
Ni	Au	Ag	S	As	Sb	X	Y
48.00	10.00	.20	0.00	10.00	5.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated

$$$
>>>>>>>>>>>>>>>>>>1505   <<<<<<<<<<<<<<<<<
$$$

JENSEN CLASSIFICATION: Calc-Alkaline   Rhyolite

IRVINE/BARAGAR CLASSIFICATION: Calc-Alkaline   Dacite   Subalkaline

SiO2 CLASSIFICATION: Rhyolite (75.24% SiO2)

TiO2 CLASSIFICATION: Rhyolite

Rock is potash-rich vis-a-vis soda

************************ VOLCANOGENIC Base Metals EVALUATION ************************

Residuals:

MgO	K2O	CaO	Na2O	Fe2O3	SiO2	TAAS
-.10	3.31	-2.58	-3.06	-1.24	-.22	90.77
	*******					*******

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
1.72	-9.48	-9.99	-1.13	-.56
*******				

----------------------------- Volcanogenic Au Evaluation -----------------------------

Na2O(R)	K2O(%)	Au	As	Fer. Index	CO2/CaO
-3.06	4.79	10.00	5.00	2.32	2.66
					EST

SS	RT	LATITUDE	DEPARTURE	COMMENTS			
0.	0.	0.00	0.00				
SiO2	Al2O3	Fe2O3	FeO	CaO	MgO	Na2O	K2O
75.24	13.78	1.76	.33	.29	.98	.29	4.79
TiO2	MnO	P2O5	LOI	CO2	Cr2O3	Zr	Sr
.10	.10	0.00	2.35	0.00	28.00	0.00	0.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	290.00	5.00	5.00	0.00	.50	5.00	4.00
Ni	Au	Ag	S	As	Sb	X	Y
6.00	10.00	.20	0.00	5.00	5.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated

$$

>>>>>>>>>>>>>>>>>>>>1506 <<<<<<<<<<<<<<<<<<<<<<<<<<<<

$$

JENSEN CLASSIFICATION: Tholeiitic High iron Basalt

IRVINE/BARAGAR CLASSIFICATION: Tholeiitic Basalt Alkaline

SiO2 CLASSIFICATION: Basalt (46.13% SiO2)

TiO2 CLASSIFICATION: Dacite

****

Volcanogenic base metals Evaluation

WARNING SiO2 content TOO LOW for accepted volcanogenic studies ***

Residuals:

MgO	K2O	CaO	Na2O	Fe2O3	SiO2	TAAS
-1.40	.68	-.98	-1.16	3.01 *******	-.15	38.25

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
-1.41	.07	-.04	3.63	-.34

Volcanogenic Au Evaluation

Na2O(R)	K2O(%)	Au	As	Per. Index	CO2/CaO
-1.16	.96	10.00	5.00	1.30	.13 EST

SS	RT	LATITUDE	DEPARTURE	COMMENTS
0.	0.	0.00	0.00	

SiO2	Al2O3	Fe2O3	FeO	CaO	MgO	Na2O	K2O
46.13	15.76	10.86	5.05	9.23	5.77	1.63	.96
TiO2	MnO	P2O5	LOI	CO2	Cr2O3	Zr	Sr
.86	.19	0.00	3.56	0.00	28.00	0.00	196.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	110.00	5.00	5.00	0.00	47.00	40.00	6.00
Ni	Au	Ag	S	As	Sb	X	Y
36.00	10.00	.60	0.00	5.00	5.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated

$ $
>>>>>>>>>>>>>>>>>>>>1508 <<<<<<<<<<<<<<<<<<
$ $

JENSEN CLASSIFICATION: Tholeiitic High Iron Basalt

IRVINE/BARAGAR CLASSIFICATION: Tholeiitic Basalt Subalkaline

SiO_2 CLASSIFICATION: Ultramaf (42.90% SiO_2)

TiO_2 CLASSIFICATION: Ultramaf

****

Rock is highly altered (e.g. carbonatized, pyritized)

------------------------- Volcanogenic base metals Evaluation -------------------------

WARNING SiO_2 content TOO LOW for accepted volcanogenic studies ***

Residuals:

MgO	K_2O	CaO	Na_2O	Fe_2O_3	SiO_2	TAAS
-3.65	2.81	-3.59	-1.65	-1.41	3.02	47.06

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
-.59	-1.02	-1.38	-1.47	-5.95

------------------------------ Volcanogenic Au Evaluation ------------------------------

Na_2O(R)	K_2O(%)	Au	As	Per. Index	CO_2/CaO
-1.65	2.96	30.00	630.00	1.10	.61 EST

SS	RT	LATITUDE	DEPARTURE	COMMENTS
0.	0.	0.00	0.00	

SiO_2	Al_2O_3	Fe_2O_3	FeO	CaO	MgO	Na_2O	K_2O
42.90	12.58	7.34	5.53	7.91	4.67	.67	2.96
TiO_2	MnO	P_2O_5	LOI	CO_2	Cr_2O_3	Zr	Sr
.67	.19	0.00	14.59	0.00	102.00	0.00	168.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	50.00	5.00	5.00	0.00	145.00	200.00	24.00
Ni	Au	Ag	S	As	Sb	X	Y
68.00	30.00	.60	0.00	630.00	20.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated

MPH

$ $
>>>>>>>>>>>>>>>>>>1518   <<<<<<<<<<<<<<<<<<
$ $

JENSEN CLASSIFICATION: Tholeiitic Basalt

IRVINE/BARAGAR CLASSIFICATION: Tholeiitic Basalt Alkaline

SiO2 CLASSIFICATION: Ultramaf (42.13% SiO2)

TiO2 CLASSIFICATION: Ultramaf

Rock is highly altered (e.g. carbonatized, pyritized)

------------------------- Volcanogenic base metals Evaluation -------------------------

WARNING SiO2 content TOO LOW for accepted volcanogenic studies ***

Residuals:

MgO	K2O	CaO	Na2O	Fe2O3	SiO2	TAAS
-1.49	2.41	-4.14	-2.00	.10	1.47	55.08

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
-.14	-2.21	-2.59	.70	-2.64

------------------------------ Volcanogenic Au Evaluation ------------------------------

Na2O(R)	K2O(%)	Au	As	Per. Index	CO2/CaO
-2.00	2.53	30.00	250.00	1.41	.46 EST

SS	RT	LATITUDE	DEPARTURE	COMMENTS
0.	0.	0.00	0.00	

SiO2	Al2O3	Fe2O3	FeO	CaO	MgO	Na2O	K2O
42.13	14.14	7.12	7.40	7.68	7.12	.19	2.53
TiO2	MnO	P2O5	LOI	CO2	Cr2O3	Zr	Sr
.47	.19	0.00	11.05	0.00	229.00	0.00	232.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	60.00	5.00	5.00	0.00	5.00	40.00	2.00
Ni	Au	Ag	S	As	Sb	X	Y
98.00	30.00	.40	0.00	250.00	5.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated

MPH

$ $
>>>>>>>>>>>>>>>>>>>>>>63199 <<<<<<<<<<<<<<<<<<
$ $

JENSEN CLASSIFICATION: Tholeiitic High Iron Basalt

IRVINE/BARAGAR CLASSIFICATION: Tholeiitic Basalt Alkaline

SiO2 CLASSIFICATION: Rhyolite (78.14% SiO2)

TiO2 CLASSIFICATION: Rhyolite

****

Rock is slightly potash enriched vis-a-vis soda

************************ VOLCANOGENIC Base Metals EVALUATION ************************

Residuals:

MgO	K2O	CaO	Na2O	Fe2O3	SiO2	TAAS
1.01	-.64	.86	-2.85	3.36	8.62	44.12
			*******	*******	*******	

Discriminant Functions:

DF1	DF2	DF3	DF4	DF5
.81	-5.20	-5.64	3.99	3.91
			*******	*******

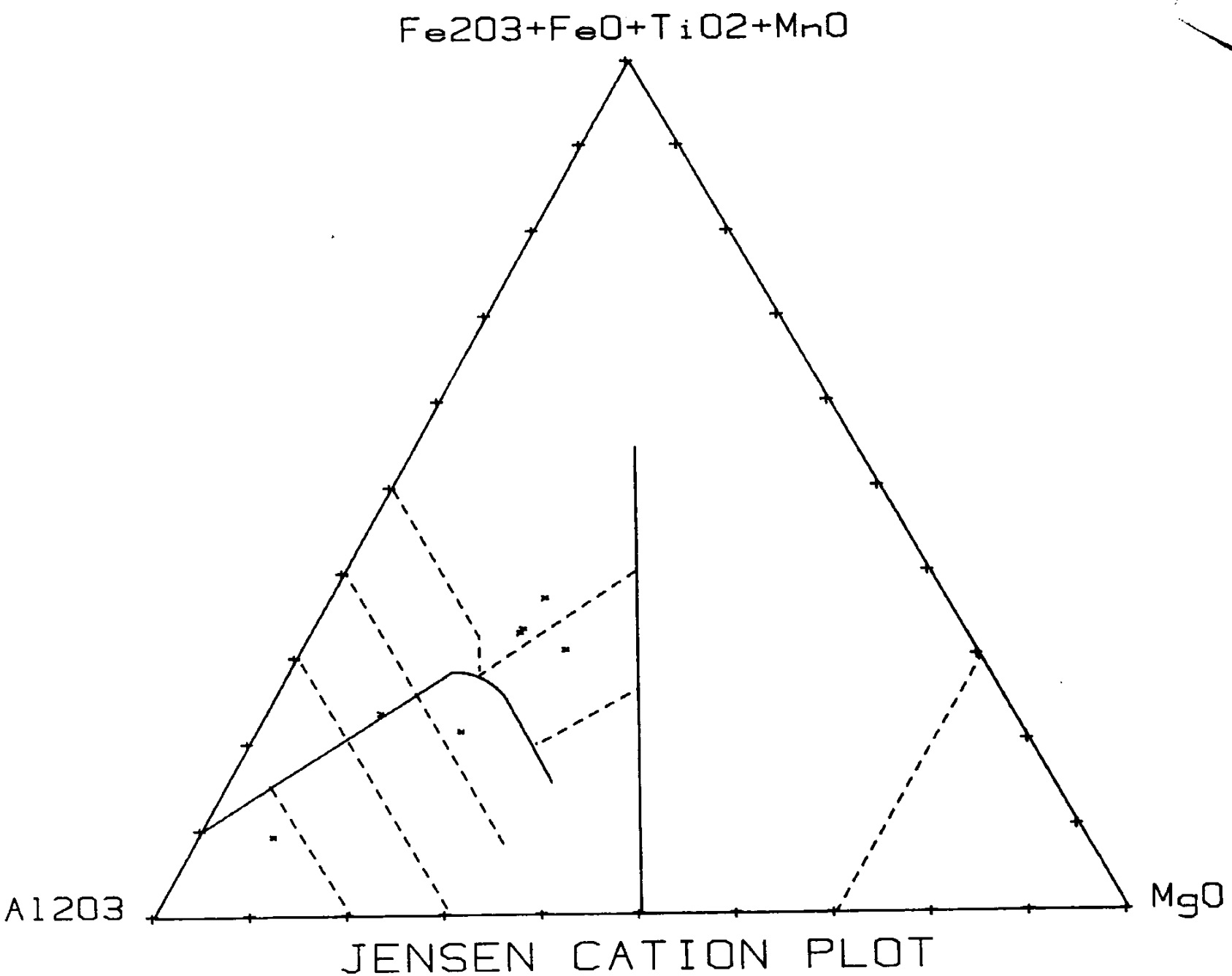
---------------------------- Volcanogenic Au Evaluation ----------------------------

Na2O(R)	K2O(%)	Au	As	Per. Index	CO2/CaO
-2.85	.95	670.00	1180.00	1.02	.45
		*******			EST

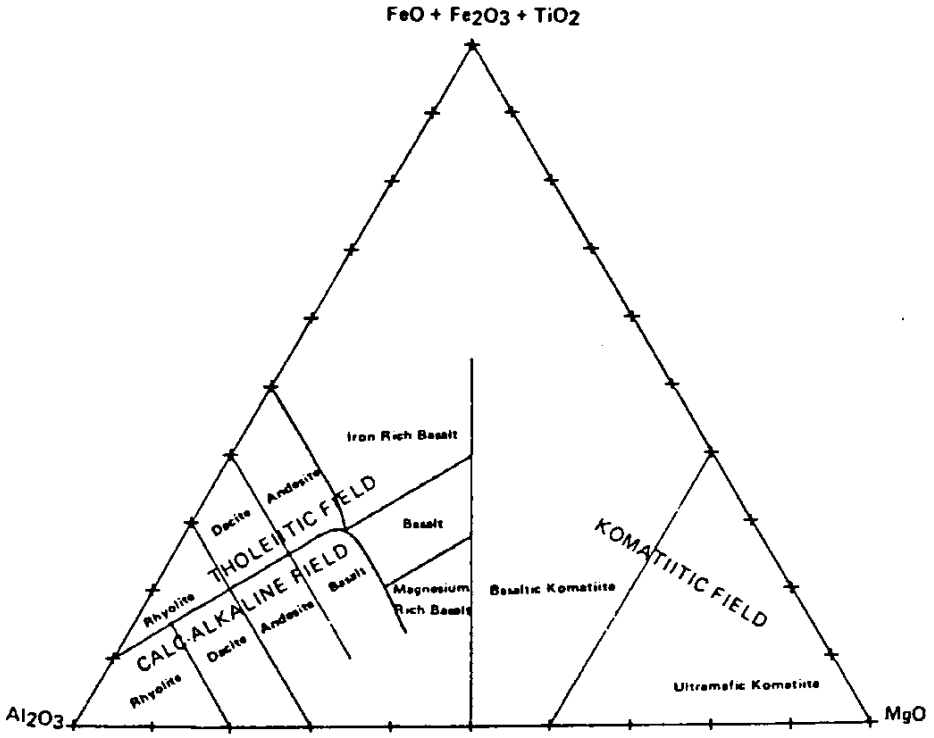
SS	RT	LATITUDE	DEPARTURE	COMMENTS
0.	0.	0.00	0.00	

SiO2	Al2O3	Fe2O3	FeO	CaO	MgO	Na2O	K2O
78.14	4.57	3.62	2.13	3.43	1.91	.19	.95
TiO2	MnO	P2O5	LOI	CO2	Cr2O3	Zr	Sr
.29	.10	0.00	4.67	0.00	220.00	0.00	42.00
Rb	Ba	W	U	Th	Cu	Zn	Pb
0.00	30.00	5.00	5.00	0.00	.50	10.00	4.00
Ni	Au	Ag	S	As	Sb	X	Y
9.00	670.00	.40	0.00	1180.00	5.00	0.00	0.00

N.B.: ******* anomalous factor
N/A not available
EST estimated



JENSEN CATION PLOT



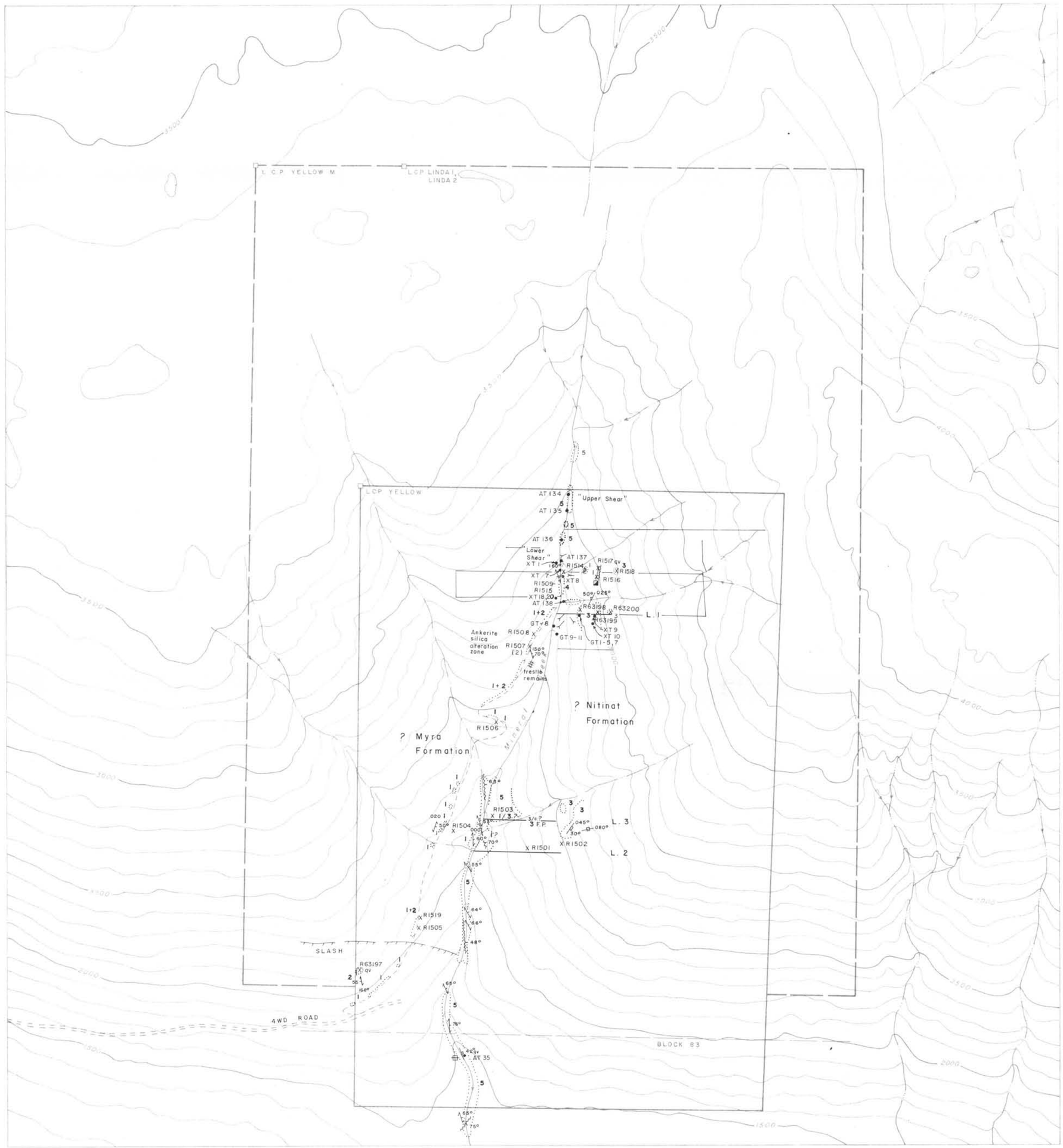
JENSEN CATION PLOT

APPENDIX V

Abbreviations Used in Mineral Occurrences References

ABBREVIATIONS USED IN MINERAL OCCURRENCES REFERENCES

AR	B.C. Ministry of Energy, Mines and Petroleum Resources Assessment Report
BCDM	British Columbia Department of Mines
Bull	Bulletin
EBC	Exploration in British Columbia; B.C. Ministry of Energy, Mines and Petroleum Resources
GEM	Geology, Exploration and Mining in British Columbia; B.C. Department of Mines and Petroleum Resources
GSC	Geological Survey of Canada
Gunnex	Mineral Occurrences, E&N Land Grant, Vancouver Island, B.C.; Gunnex Ltd., 1966
Mem	Memoir
MER	British Columbia Mineral Exploration Review; B.C. Ministry of Energy, Mines and Petroleum Resources
Minfile	B.C. Ministry of Energy, Mines and Petroleum Resources Minfile, Feb. 2, 1984
MMAR	B.C. Ministry of Mines Annual Report
P	Paper
TML	Today's Market Line
VS	Vancouver Stockwatch



CLAIM MAP

LOCATION MAP

GEOLOGY

1 BASALTIC TO BASANDESITIC LAPILLI TUFF (BRECCIA)
Dark green-brown to grey-green weathered and fresh. Fine to medium grained tuffaceous matrix with up to 30% poorly defined clasts to 4cm (average <1cm). Variably altered to chlorite-sericite-carbonate ± quartz schist. Pyrite nil to <1%

2 QUARTZ-SERICITE-CHLORITE-CARBONATE SCHIST
Grey-white weathered and fresh. Fine-grained. Possibly derived from felsic volcanic rocks. Py ~ 1/2%. In part contains bright green mineral, possibly fuchsite.

3 BASALT, massive
Dark green-brown weathering. Fresh surface medium green, fine to medium grained. Well chloritized. Poorly foliated in part. Calcareous. Contains rare thin grey cherty horizons.

4 MYLONITE ZONE
Limonitic to dark-grey weathered and crumbly in part. Intensely carbonatized, bleached, patchily kaolinized or silicified. Very rounded fragments to 2cm of grey-white quartz in fine-grained matrix. Fine to coarse euhedral pyrite and minor arsenopyrite form up to 15% of the rock. Some pods of semi-massive sulphides.

5 BASANDESITE, undifferentiated
(mapped by D.G. Allen, 1985)

SYMBOLS

qv	Quartz vein		Old trench, not seen
	Outcrop		Mapped trench
	Fractures	X	MPH rock sample location
	Foliation	•	A&M rock sample location

ROCK GEOCHEM RESULTS (MPH 1985)

Sample No	Au ppb	As ppm	Other
R 63197	780	100	
R 63198	10	<10	
R 63199	670	1180	
R 63200	10	<10	
R 1501	10	<10	
R 1502	1100	190	
R 1503	10	10	
R 1504	10	<10	
R 1505	10	<10	
R 1506	10	<10	
R 1507	10	<10	Cr-394
R 1508	30	830	Pb-24, Zn-200
R 1509	660	340	Cr-263
R 1510	1700	450	
R 1511	140	410	Ag-1·2, Cr-916
R 1511A	10	250	Cr-1262, Ni-363
R 1512	580	1390	Ag-1·0
R 1513	140	360	
R 1514	10	<10	
R 1515	500	1000	Ag-1·0
R 1516	900	2750	
R 1517	280	360	
R 1518	30	250	
R 1519	10	300	

1983-85 A&M ROCK SAMPLE RESULTS

Sample No	Au ppb	As ppm
GT 1	0·008[x]	78
GT 2	0·560[x]	1400
GT 3	0·015[x]	176
GT 4	0·046[x]	180
GT 5	0·036[x]	144
GT 7	0·016[x]	126
GT 8	0·270[x]	640
GT 9	0·080[x]	3000
GT 10	0·160[x]	640
GT 11	0·010[x]	520
AT 134	1500	180
AT 135	1560	510
AT 136	360	104
AT 137	870	120
AT 138	2610	1060
XT 1	110	64
XT 7	940	160
XT 8	1420	160
XT 9	240	56
XT 10	1440	1400
XT 18	1000	680
XT 20	2800	1120
AT 35	170	228

[x] Gold values in ounces per ton.

PROFESSIONAL GEOLOGIST ATTACHED TO P.E.N.G. T.E. Gregory Hawkins

GEOLOGICAL BRANCH ASSESSMENT REPORT

To accompany Report by T.E. Gregory Hawkins, P.Geol.

14,483

100 50 0 100 200 300 400 Metres

SILVER CLOUD MINES LTD.

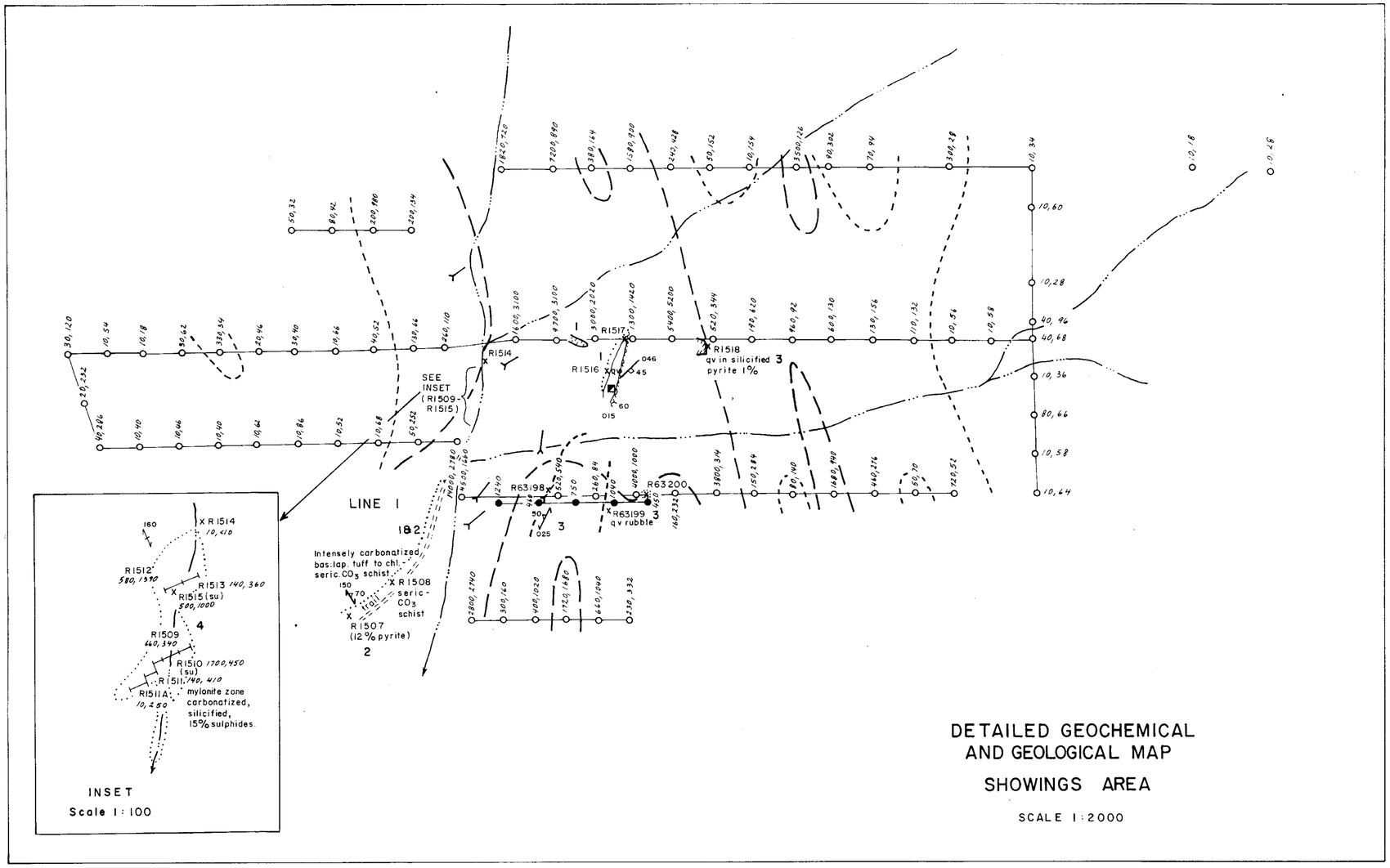
GEOLOGY AND ROCK SAMPLE LOCATIONS

YELLOW CLAIMS

ALBERNI MINING DIVISION

Project No:	V 216	By:	K. H.
Scale:	1:5000	Drawn:	J. S.
Drawing No:	FIGURE 5	Date:	DECEMBER, 1985.

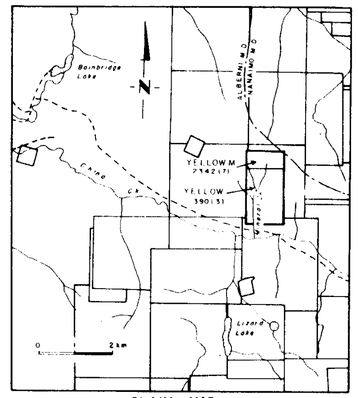
MPH Consulting Limited



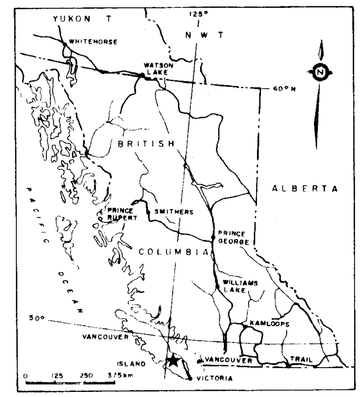
DETAILED GEOCHEMICAL AND GEOLOGICAL MAP

SHOWINGS AREA

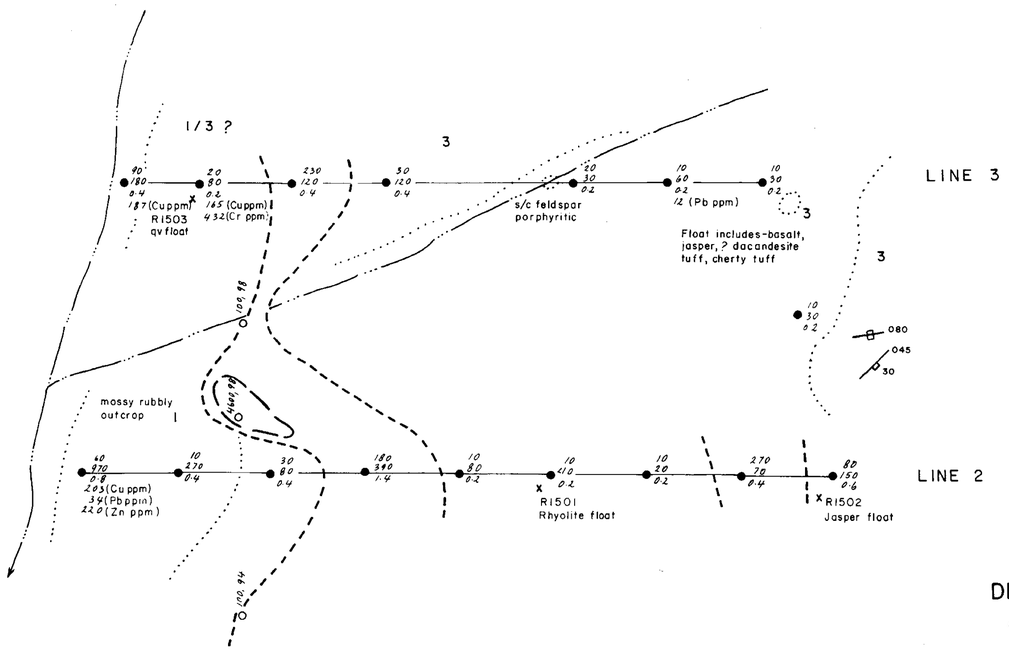
SCALE 1:2000



CLAIM MAP



LOCATION MAP



DETAILED GEOCHEMICAL AND GEOLOGICAL MAP

SOUTH GRID

SCALE 1:1000

PROFESSIONAL GEOLOGIST ALBERTA T.E. Gregory Hawkins LICENSED TO PRACTISE

GEOLOGICAL BRANCH ASSESSMENT REPORT

12/17/85

14,483

LEGEND

230 Au ppb / 120 As ppm / 0.2 Ag ppm — 750 Au ppb — MPH 1985 soil sample grid, sample location and geochemical results.

As ppm / Au ppb — A&M 1983 soil sample grid, sample location and geochemical results.

Soil contour Au ≥ 100ppb

Soil contour Au ≥ 1000ppb

A&M and MPH data combined

x R1514 — MPH rock sample location and number

R1513 140, 360 (Au ppb, As ppm) — MPH rock sample location, number and results

SILVER CLOUD MINES LTD.

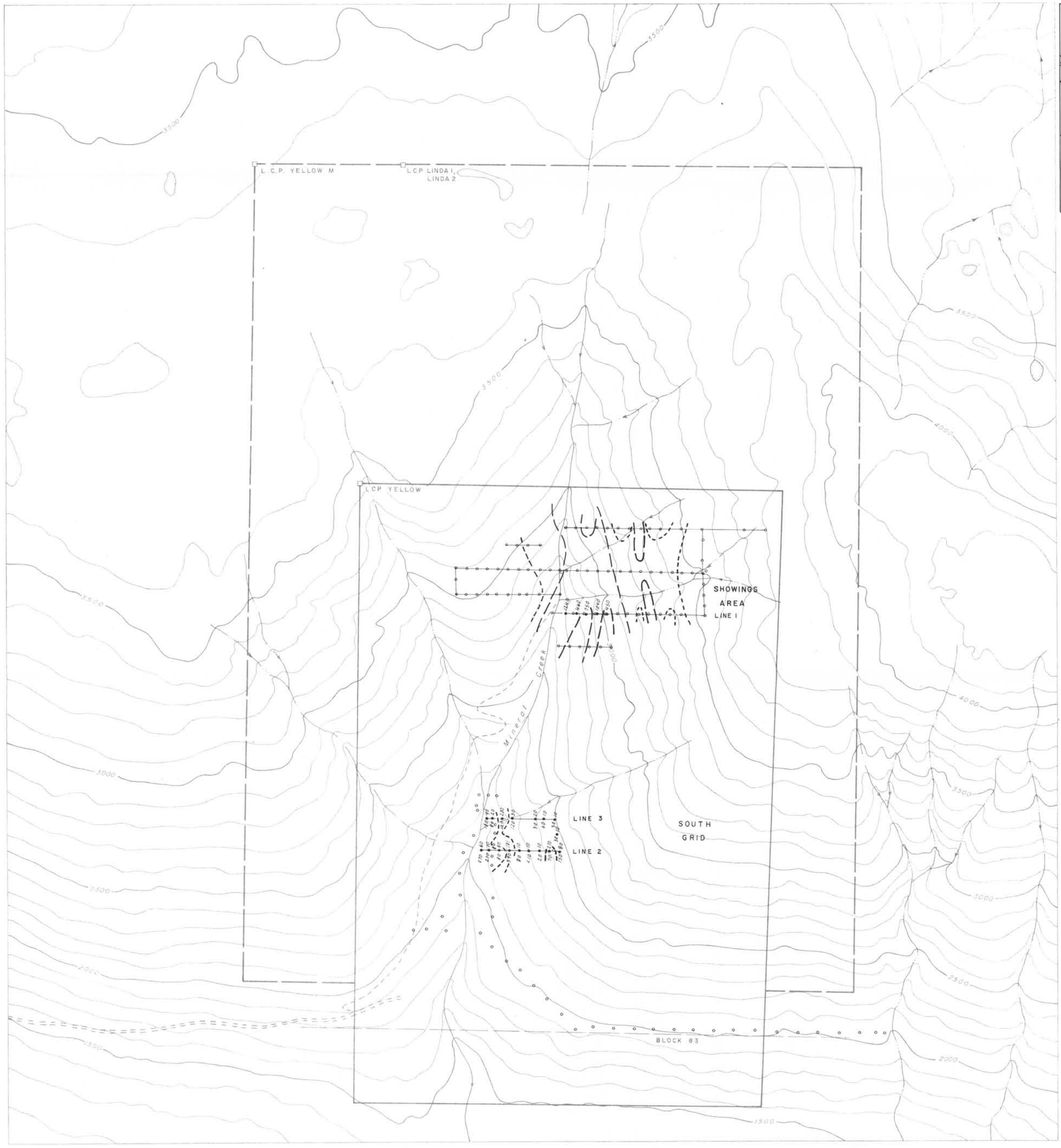
DETAILED AREAS, GEOLOGY AND GEOCHEMICAL RESULTS

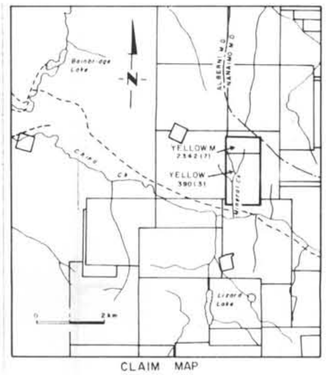
YELLOW CLAIMS

ALBERNI MINING DIVISION

Project No:	V 216	By:	K. H.
Scale:		Drawn:	J. S.
Drawing No:	FIGURE 5A	Date:	DECEMBER, 1985.

MPH Consulting Limited





CLAIM MAP

LOCATION MAP

LEGEND

- MPH 1985 soil sample grid
- A&M 1983 soil sample grid
- Au ppb / As ppm — MPH soil sample location and results
- Soil contour Au ≥ 100 ppb
- Soil contour Au ≥ 1000 ppb

A&M and MPH data combined

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,483

To accompany Report by T.E. Gregory Hawkins, P.Geol. dated 2/17/85

PROFESSIONAL GEOLOGIST ALBERTA
T.E. Gregory Hawkins
LICENSED TO PRACTICE

100 50 0 100 200 300 400 Metres

SILVER CLOUD MINES LTD.

SOIL GEOCHEMISTRY MAP

YELLOW CLAIMS

ALBERNI MINING DIVISION

Project No:	V 216	By:	K. H.
Scale:	1:5000	Drawn:	J. S.
Drawing No:	FIGURE 7	Date:	DECEMBER, 1985.

MPH Consulting Limited