021969

PRELIMINARY REPORT ON THE

RAIN 1 - 4 CLAIMS

Alberni M.D., Vancouver Island, B.C.

for

Mr. Clive Ashworth

1545 Marine Drive

West Vancouver, B.C.

V7V 1H9

Location: NTS 92F/2
49° 11'N/124° 43'W
6 km SE of Port Alberni, B.C.

Subject: A Review of Geology, Mineral Occurrences and Previous Exploration in the Area.

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Nanaimo, B.C., V9T 2S3

July 30, 1986

SUMMARY

The Bain Claim Group consists of 4 contiguous claims, Bain 1 - 4, total 76 units (19 sq. km.), and is located on China Creek near Bainbridge Lake, about 6 km. SE of Port Alberni, Vancouver Island, B.C. The property is owned by Mr. Clive Ashworth of West Vancouver, B.C.

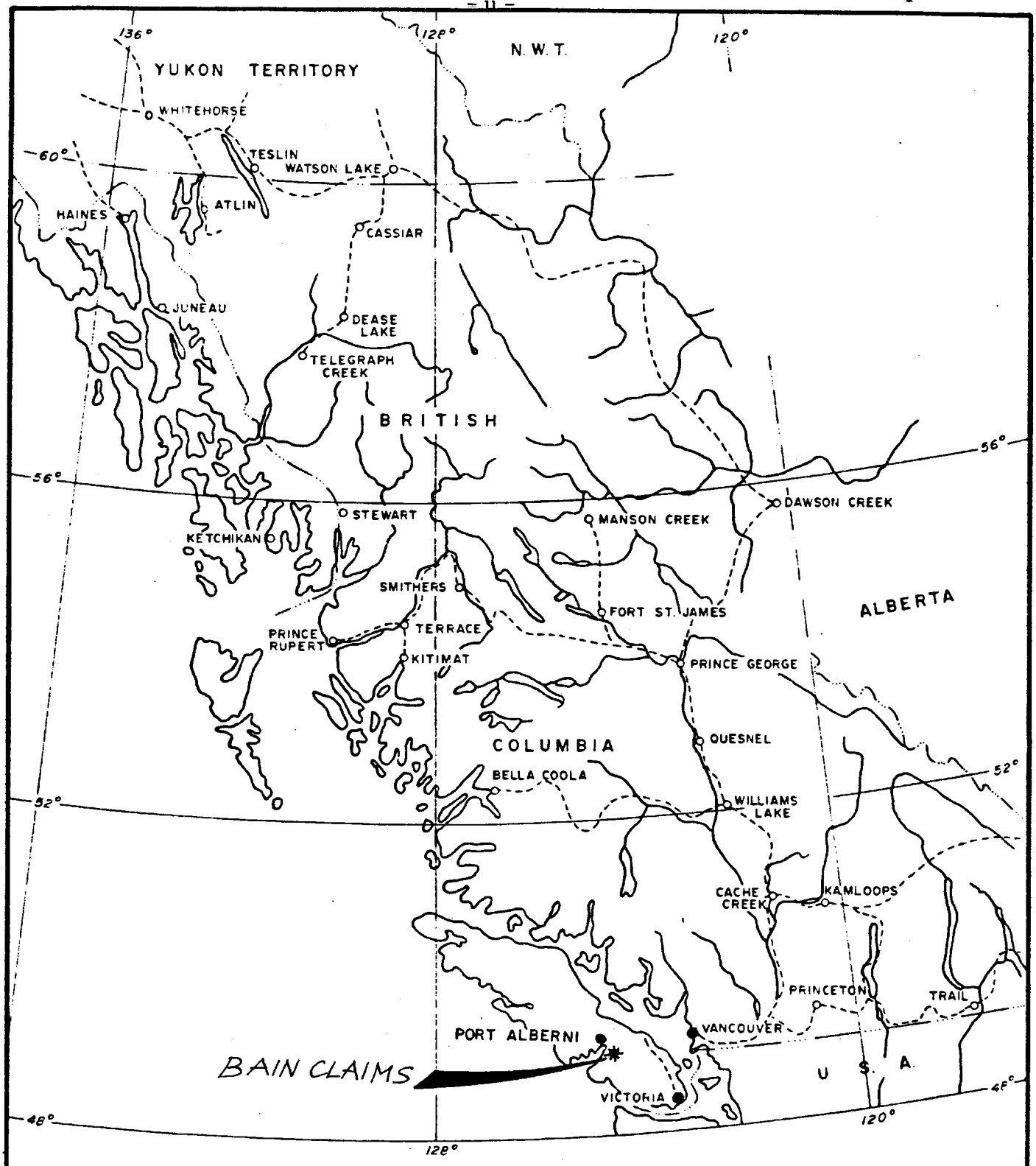
The claims were staked in late 1985 to cover the old "Ruby Silver" showing at China Creek, as well as an airborne magnetic anomaly, some geochemical anomalies, and other small mineralized occurrences in the area discovered during an exploration program in the 1960's by Gunnex Limited on the E & N Railway Land Grant.

The eastern part of the claims is underlain by Myra Formation of Paleozoic Sicker Group rocks, which hosts a number of base and precious metal deposits in the China Creek - Mount McQuillan area as well as elsewhere on the Island. A north trending fault through the property forms the contact between the Sicker Group, the oldest unit, and younger rocks to the west on the property. These include the Triassic volcanics of Vancouver Group, Jurassic Island Intrusions, Cretaceous Nanaimo Sediments, and Tertiary Intrusions, mostly feldspar - porphyry sills, intruding all older rocks. Dykes of these later intrusions are known to be associated with precious metal (Au, Ag) deposits, such as auriferous quartz veins, in the China Creek area and elsewhere. Both the presence of Myra Formation and Tertiary Intrusions in the claims area are considered to bs favourable geological environment for the base and precious metal deposition.

As far as it is known, very little exploration has been done so far in the immediate claim group area, although considerable past mining activity and more recent exploration has taken place in the vicinity. Placer mining for gold was done in China Creek during the late 1800's, including the area of the present claim group, which later led to the discovery of numerous lode deposits, some of which became small intermittent producers. These include Vancouver Island Gold Mines (about 2 km east of Bain Group), Regina (2 km SE), Thistle Mine (about 8 km SE), and several other mines at the headwaters of China Creek and Nitinat River (eg. Havilah, Golden Eagle and Black Panther).

It is recommended that a "grassroots" exploration program be carried out on the claims, initially consisting of prospecting and reconnaissance type geochemical sampling and geological mapping, later followed by more detailed work (geophysics, trenching, detail sampling and mapping, etc.) where warranted. Staking additional claims should also be considered, providing there is open ground left.

A two phase exploration program, with a budget of $100,000.00 is proposed.



GENERAL LOCATION SKETCH

SCALE 1" = 125 MILES

FIGURE 1

CONTENTS

Maps (in Text)

1. INTRODUCTION

This report was prepared at the request of Mr. Clive Ashworth, owner of Bain Claims, to summarize the known geological data, the results of any previous work done, and if warranted, to outline an exploration program to test the mineral potential of the property.

Aside from some regional work during the 1960's by Gunnex Limited, which involved reconnaissance type geochemical sampling, prospecting and mapping, and also a regional helicopter-borne aeromagnetic survey, there appears to be no record of any other work being done since in the claims area.

The Bain 1 - 4 claims were staked in 1985 by Mr. C. Ashworth to cover a geologically favourable area, which included mineral occurrences, an airborne magnetic anomaly, and several geochemichal anomalies reported by Gunnex Limited.

2. PROPERTY

The Bain Group consists of 4 contiguous mineral claims totalling 76 units, all in Alberni Mining Division, B.C., as detailed below:

CLAIM NAME	UNITS	RECORD #	RECORD DATE
Bain 1	16	2777	Nov 29, 1985
Bain 2	20	2776	Nov 29, 1985
Bain 3	20	2775	Nov 29, 1985
Bain 4	20	2774	Nov 29, 1985

All 4 claims are owned by Mr. Clive Ashworth, 1545 Marine Drive, West Vancouver, B.C., V7V 1H9.

Total area covered by these claims is 19 sq. km. Base metal rights on the south part of the property are owned by MacMillan Bloedel Ltd., a logging company (originally these were held by CPOG under the E & N Railway Land Grant).

3. LOCATION, TERRAIN AND ACCESS

The centre of the claims is some 6 km SE of Port Alberni, Vancouver Island, B.C. They straddle China Creek and its tributary, McFarland Creek. The about 1 km long Bainbridge Lake is located on the north boundary at Bain 1 claim. The main access is by China Creek logging road from Port Alberni, with a branch road to Cameron River. A water pipeline, which supplies Port Alberni, follows China Creek, with the intake valve near the common boundary of Bain 3 and 4 claims.

Area is covered by thick second growth timber, mostly Douglas fir, hemlock and cedar. Topographic relief ranges from 120 metres above "mean sea level" at China Creek to about 1,000 metres along the eastern boundary of the property. Most of the steeper slopes occur on east part of Bain 2 and 4 claims.

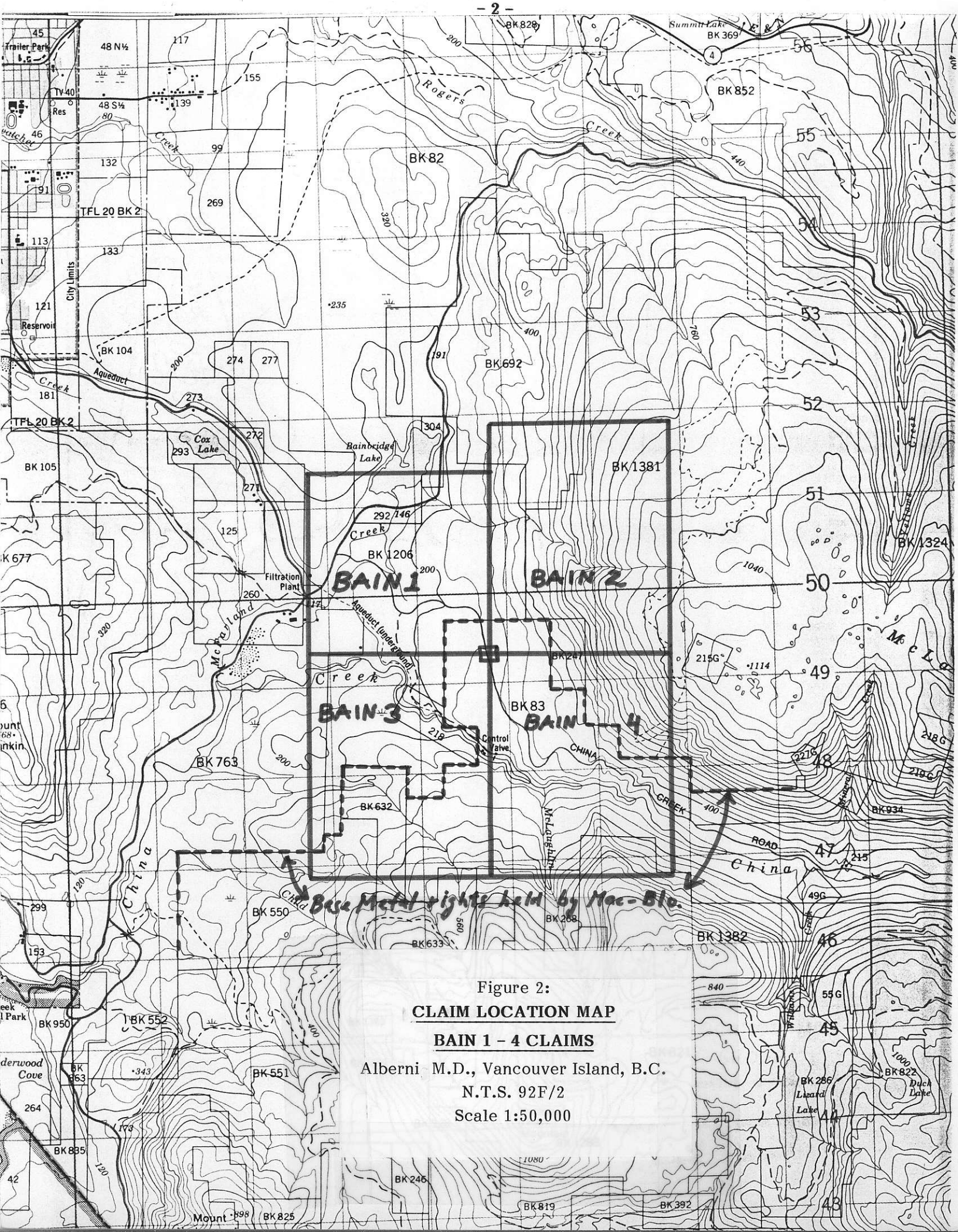


Figure 2:

CLAIM LOCATION MAP

BAIN 1 - 4 CLAIMS

Alberni M.D., Vancouver Island, B.C.

N.T.S. 92F/2

Scale 1:50,000

4. GEOLOGY

4.1. Regional Geology (See Figure 3)

The oldest rocks on the property, and on Vancouver Island, are those of Paleozoic Sicker Group. Muller (GSC, 1980) has divided this group, oldest to youngest, as the Nitinat Formation, an informal sediment-sill unit, Myra Formation, and Buttle Lake Formation. These Sicker Group rocks are generally overlain by Triassic Vancouver Group, here represented mainly by the Karmutsen Formation volcanics. Both groups are intruded by the Jurassic Island Intrusions, mainly dioritic stocks, and more locally by sills and dykes of Tertiary age (correlated with Catface Intrusions on west coast of Island). Along the east side of Island, and also in Port Alberni area, the Late Cretaceous Nanaimo Group sediments overlie extensively the older rocks. In places, such as at Patlicant Mountain and Bainbridge Lake here, these sediments are intruded by extensive sills of the above Tertiary Intrusions.

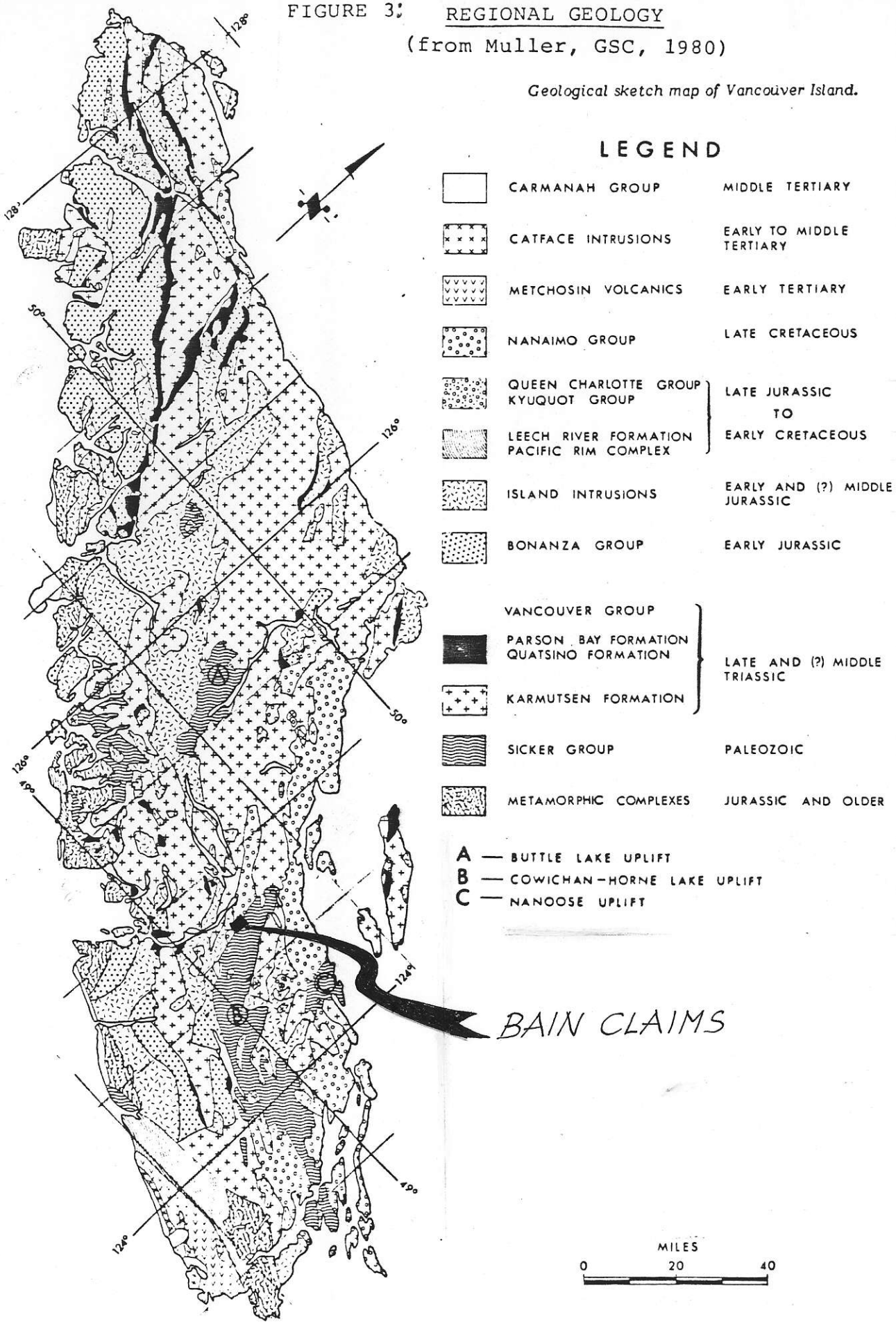
The most dominant regional structures on Island are series of long NNW to north trending systems of steep faults, affecting Sicker and Vancouver Group rocks and giving a "patchwork" appearance to the geological maps. There have been several periods of faulting, intrusion and volcanic activity.

The oldest, Sicker Group rocks, have been generally buried under a thick Mesozoic cover, except where they have now been exposed in three major (and some smaller) "uplift" areas or arches. These are: The Buttle Lake Uplift, toward north, the extensive Cowichan - Horne Lake Uplift, toward south, and the smaller Nanoose Uplift, north of Nanaimo. The Bain claims are situated along the western edge of the northern end of the Cowichan - Horne Lake Uplift.

These uplifted belts of Sicker Group, particularly where they contain the sedimentary rocks of Myra Formation, are considered to be the geologically most favourable and economically most promising areas for base and precious metal exploration on the Island. The Buttle Lake Uplift contains the Westmin's volcanogenic Kuroko - type massive sulphide deposits, which also carry gold and silver. Here, the Cowichan - Horne Lake belt contains the past producers of Mount Sicker area (including the recently discovered Abermin's Lara prospect and others), as well as the old Mount McQuillan -- China Creek camp containing numerous vein type Au - Ag deposits and prospects (eg. Mineral Creek, Black Panther, Havilah, Golden Eagle, Regina, Etc.) and also massive sulphide deposits (eg. old Thistle Mine).

FIGURE 3: REGIONAL GEOLOGY
(from Muller, GSC, 1980)

Geological sketch map of Vancouver Island.



4.2. Local Geology (See Figure 4)

The following major geological units are present on the Bain Group and immediate area:

The Sicker Group rocks underlie the eastern part of the claims, forming the western edge of the Cowichan - Horne Lake Uplift aleng a north - trending fault contact. On the property, the Sicker Group is represented by the Lower Devonian (or older) Myra Formation which includes basic to rhyodacitic volcanics (tuffs, breccia and flows), and thinly bedded to massive argillite, siltstone and chert. The older, Nitinat Formation rocks occur a few km east of here.

The western part of claim group is underlain by the basaltic Karmutsen Formation of Vancouver Group. In the SW corner of the property and near Bainbridge Lake, these volcanics have been intruded by the dioritic Island Intrusions. The contact between the volcanics and intrusives is overlain by relatively flat-lying Cretaceoue Nanaimo sediments, here represented by the Comox Formation (older, toward west of Bainbridge Lake), consisting of sandstone, conglomerate and shale, and the Haslam Formation (younger, toward east) consisting of shale, siltstone and some sandstone.

North of Bainbridge Lake, along the north boundary of Bain 1 claim, and in the Mount Patlicant area south of the property the Nanaimo sediments, etc, have been intruded by large sills of Tertiary "feldspar porphyry". The dykes of similar porphyry are known to occur some 10 or more km southeast of here in Mount McQuillan area where they appear to be associated with mineralized (Au - Ag) quartz veins, eg. at Golden Eagle, Havilah, the Middle Vein and other old prospects.

The geology of the property has not been mapped in any detail, except some regional mapping by the author in 1960's (Laanela, 1964-66), and Muller (GSC, 1977-80). Much of the low-lying area, particularly the western part of the claims, is covered with dense bush and extensive overburden, making the detail mapping difficult.

5. HISTORY AND PREVIOUS WORK

Placer gold was found in China Creek in 1860's, followed by a period of placer mining which eventually led to discovery of the lode deposits in the China Creek and Rift Creek headwaters area around Mount McQuillan. A number of placer claims were worked in the area now covered by the Bain Claims, including the "Cataract" claim in this section of China Creek, "Balley" west of it, and "Duke of York" next to east of "Cataract" (see miscellaneous references to China Creek placers in B.C.M.M. reports, 1893 and later).

BAIN CLAIM GROUP
Alberni M.D., Vancouver Island, B.C.

GEOLOGY
Scale 1" : ½ mile (1:31,680)

0 ½ 1 mile
0 .5 1 km 2 km

Geological mapping by H. Laanela, 1964-66

Drawn by H.L., 1986.

BAIN 1
BAIN 2
BAIN 3
BAIN 4

Ncg — Nanaimo Group
Nsh — Haslam Formation
Ns — Northumberland Formation
Nss — Northumberland Formation, sandstone
Vv — Karmutsen Formation
Sv — Myra Formation / Nitinat Formation
Idi — Island Intrusions
f.p. — feldspar-porphyry
py — pyrite
Au — gold showing
As — arsenic showing
Cu — copper showing

(Nanaimo Group)
Height of Land
Rogers Ck
strong shearing & qtz. veins
Cameron River
O/B (Ns?)
(Karmutsen Fm)
(Myra Fm)
(Nitinat Fm)
McFarlane Lk.
Pipe Line
Cox Lk.
f.p. still?
Bainbridge Lk.
Height of Land (McLaughlin Ridge)
Yellows Ck.
Lot 215G
ponds
Au, Ag "Ruby Silver"
China Creek
Vanc. Isl. Gold Mines (old works)
qtz. veins, much shearing, rusty
Mineral Ck.
abandoned railway grade
A/B Mag. Anomaly (1962)
22° 18' E
49°10'N
Child Ck
"Grizzly" Arsenic Show
McLaughlin Ck
f.p. sill (Tertiary feldspar-porphyry)
Williams Ck.
"Regina" (old works)
schist
Lizard Lk.
Duck Lk.
PATLICANT MTN.
45°

FIGURE 4.

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J.S. Stevenson (B.C.M.M. report, 1945) summarizes the history and geology of the China Creek camp, particularly the lode mines and prospects in the Mount McQuillan area, at the headwaters of China Creek. Several of these old mines and prospects described occur close to the property, eg:

- Vancouver Island Gold Mines on Mineral Creek, about 2km to east, a past producer;
- "Regina" Group, an Au-Ag prospect with old nnderground workings, about 2 km. to SE;
- "Grizzly" Arsenic Showing on McLaughlin Creek just south of Bain 4 claim;
- "Thistle Mine" (Au, Cu, etc.), now actively explored by Westmin, about 8 miles SE, at headwaters of Museum Creek, and others within a few km east of "Thistle" (Black Panther, Black Lion, Golden Eagle, Havilah, Middle Vein, High Grade Vein and B & K).

Farther to the south, some 13 km. to SSE, on Mount Spencer, is the "Mary" Cu-Zn-Mo-Ag-Au prospect, discovered in 1964 by Gunnex Limited (Laanela, 1964-66).

The claims area is part of the old Esquimalt and Nanaimo (E & N) Railway Land Grant, which included timber and base metal rights. In mid-1960's, Gunnex Limited, a subsidiary of Gunnar Mining Ltd., in partnership with Canadian Pacific Oil & Gas (CPOG) who then held the mineral rights, carried out a regional exploration of the Land Grant. The work consisted of regional geochemical silt and spilsampling, prospecting, geological mapping, as well as more detailed examination of various prospects in the area. Prior to this work, in 1962, a helicopter-borne aeromagnetic survey was flown over the Land Grant area by Hunting Survey Corporation Limited on behalf of CPOG, during which a number of magnetic anomalies were discovered (including one on the present Bain 3 claim).

The regional work carried out by Gunnex Limited in the 1960's included sampling, prospecting and mapping of the present Bain claims area. The following descriptions of mineral occurrences and anomalies in the claims area are summarized from the Gunnex Limited reports of that period (Laanels, 1964-66):

1. "Ruby Silver" Showing (on Bain 3 Claim):

This showing (a short adit?) is 6,500 feet (1,980 metros) downstream from the pipeline intake, on south bank of China Creek, at low water level and a few hundred feet below an old sluice dam of early placer mining days. Apparently there are no official reports. No work was done by Gunnex Limited, except for a short visit in August, 1964; two assay samples, taken from the adit and a pit above it assayed only traces of Au.

Workings consisted of a caved-in cut (or short inclined adit?) at water level, SW side of creek and below the bank; it was filled with gravel and water. There was an old cabin, and an old pit on the hill, above the adit.

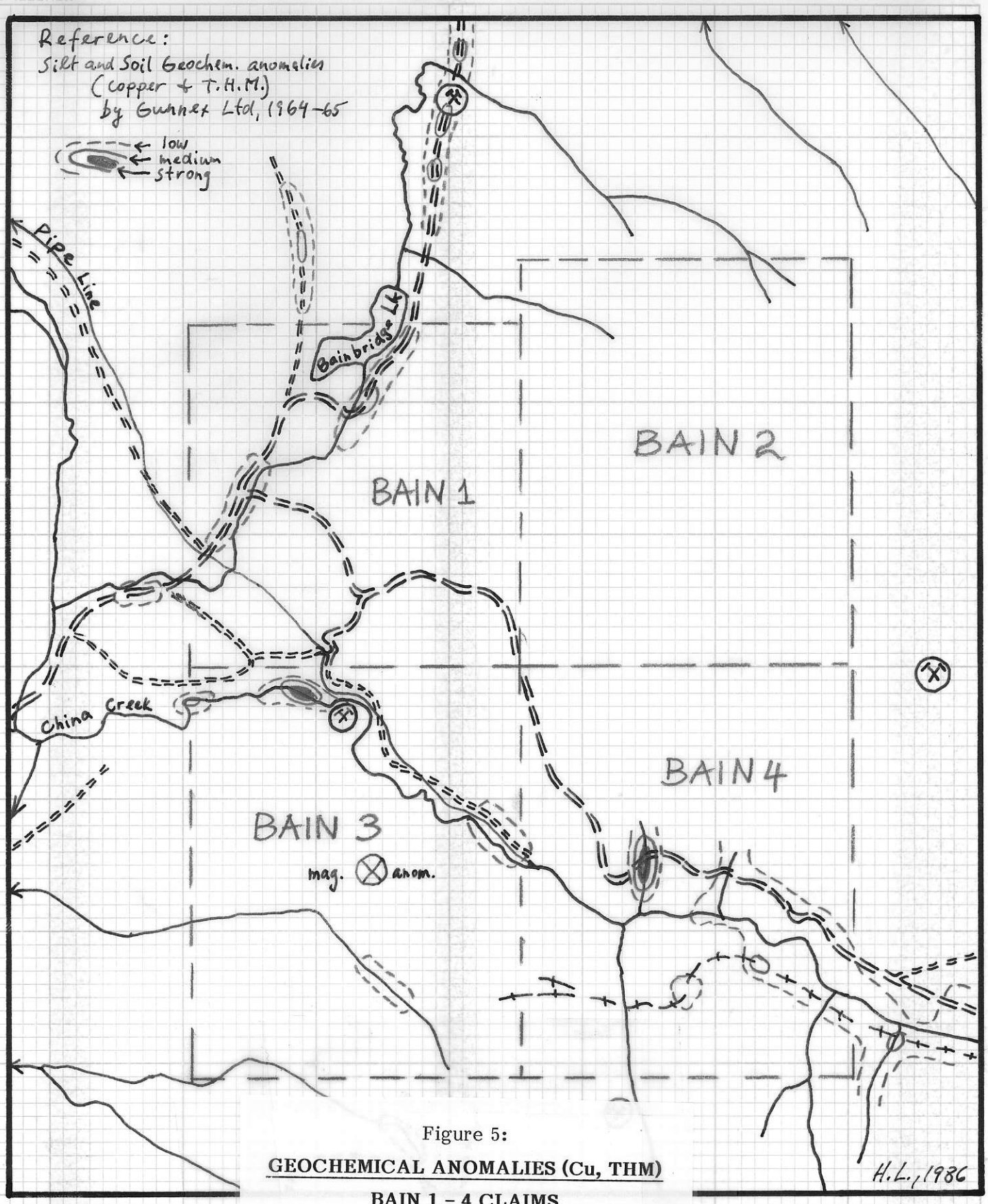

Figure 5:

GEOCHEMICAL ANOMALIES (Cu, THM)

BAIN 1 – 4 CLAIMS

(Based on Geochem Survey
by Gunnex Ltd., 1964-65)
Scale: 1": ½ mile

The country rock was diorite, biabasic-looking near the adit. A sheared rusty vein, at NE/60 NW, was seen in the adit, with quartz stringers; a rusty shear was also seen on opposite bank, north of the dam. No mineralization was seen, aside from some rust and minor pyrite, and the showing was not thought to be important.

2. Copper Stain North of Bainbridge Lake:

In the fall of 1965, some blue and green copper stain was observed in freshly bulldozed road cuts 3/4 miles north of the east end of Bainbridge Lake, surrounded by much rust and alteration of volcanic rocks.

The geology of the area was mapped as "Vancouver Volcanics" intruded by deeply weathered dioritic rocks by the lake. The volcanics in the road cuts appeared to be soft and quite altered, with much shearing and epidote present, and with possible diorite contact not too far below.

Diorite was exposed all along the south side of the lake. Toward north it was covered by patches of Nanaimo Sediments and volcanics, until grading into volcanics north of the Bain 1 claim; contact appears to be gently dipping near the showings.

Tertiary (?) feldspar porphyry intrusions, possibly a sill, were exposed north of the west end of Bainbridge Lake; much overburden present here, covering the flat terrain. A fault contact with Sicker volcanics occurs east of here.

In one showing, copper occured in a 2' x 10' patch of quartz-rich material, probably pegmatitic; no sulphides were seen. The prospector reported more copper stain and magnetite farther north along the road; much shearing and minor specks of copper were seen in road cuts.

Mr. Harry Brown, a "local" used as a guide, reported finding a "high grade gold float" near the lake some time ago, prior to 1965 visit.

Althongh the showings were considered to be "insignificant" it was recommended that more prospecting and soil sampling be carried out in the area (Laanela, 1966).

3. Soil Geochemical Anomalies (1965 sampling):

Soilsampling by Gunnex Limited personnel during 1965 along the above road revealed several "soil highs", eg. up to 750 ppm Cu; some of these were related to the copper showings north of the present Bain 1 claim.

Geochemical copper and Total Heavy Metal anomalies were also found in China Creek, below the Ruby Silver Showing and in a gully, north of the China Creek road opposite McLaughlin Creek, on Bain 3 and 4 claims, respectively.

4. Airborne Magnetic Anomaly (Bain 3 Claim):

Hunting's 1962 helicopter-borne survey located a magnetic anomaly close to the centre of the present Bain 3 claim. It was not examined by Gunnex Limited during the 1960 program. The following description of this anomaly is given (Laanela, 1965):

"Location about 500 feet (150 metres) NNW from NE corner of Block 632 (just N of a small pond). Amplitude 75 gammas. Probable topographic correlation. Cylinder approximation gives E.T.T. 200,000 tons, strike length 1,300 feet, radius 20 feet. Possibly in or near diorite intrusives. Should be checked and reappraised in view of other work done in the area."

The author has no knowledge of any other work being carried out in the Bain claims area.

6. CONCLUSIONS

1. The Bain claims are located along the western boundary of the Cowichan - Horne Lake Uplift of the Sicker Group rocks which includes the Myra Formation, considered favourable for base and precious metal deposits.

2. Mineralized showings, a magnetic anomaly, several geochemical anomalies and some small workings occur on the property and in the immediate area. These have not been explored in any detail so far, nor has the geology been mapped in any detail.

3. Tertiary intrusives occur in the Bainbridge Lake area, and near the south boundary of the property. These intrusives are known to be associated with precious and base metal deposits elsewhere on the Island, eg. in Mount McQuillan area at the headwaters of China Creek, and at Mount Spencer, south of the property, where they occur as dykes both in Sicker and Vancouver Group rocks.

4. Although no economically significant mineralization has so far been found on the property, e "grassroots" type exploration program is warranted to properly assess the mineral potential of the claims.

7. RECOMMENDATIONS

Phase I:

1) Additional ground should be staked north of the present boundaries, to cover the geochemical anomalies and copper occurrences found along the road north of Bainbridge Lake, and the contact of Sicker and Vancouver Group rocks. Staking additional claims east of the present claims, in the area of Myra Formation, should also be considered. Claims should be grouped for assessment work purposes, as part of Phase I exploration.

2) The old Ruby Silver showing on south bank of China Creek, on Bain 3 claim, should be located and sampled, as well as the old pit above it. Some hand-trenching and mucking may be necessary to expose mineralized shears.

3) The Huntings 1962 airborne magnetic anomaly near the centre of Bain 3 claim, should be located and outlined with a mag survey, then prospected, mapped and sampled.

4) A chain-and-compass control grid should be laid out with a N-S base line along the common claim boundary, and cross lines (initially) at 200 metre intervals. This grid should be soil sampled, initially at 100 metre intervals (total about 1,000 samples). Samples to be analyzed for Au, Ag, Cu, Pb & Zn, using A.A. method.

Where warranted, later "fill-in" sampling should be done at least at 100 m X 50 m, or closer intervals.

5) Geological mapping and prospecting of outcrops, particularly along road cuts and creeks and using grid control, should also be carried out. Enlarged airphotos may have to be used for further control.

6) All results of above surveys should be plotted on 1:5,000 scale base maps, using an enlargement of the 1:50,000 topo map as base. Locally, where warranted, the results of detail mapping, sampling and prospecting should be plotted on 1:2,000 detail maps. All results should then be evaluated to plan Phase II follow-up work.

Phase II:

1) Additional and detailed sampling, prospecting and mapping should be carried out in anomalous and mineralized areas.

2) Geophysical surveys (VLF-EM, EM and mag) in most favourable areas.

3) The above to be followed by trenching where warranted, using a backhoe or bulldozer. Trenches to be sampled for assay and mapped in detail.

4) All results to be evaluated and diamond drilling of selected target areas should be considered (say 3 - 4 exploratory holes totalling 200 metres). It the results warrant it, a Phase III program should be planned, consisting mainly of diamond drilling of selected areas.

8. PROPOSED BUDGET

Phase I:

Line grid, soilsampling:2 men X 12 days @ @250/day	$ 4,800
Prospecting: 10 days @ $250/day	2,500
Mag survey: 2 days @ $300/day	600
Geol. mapping, sampling: 12 days @ $350/day	4,200
4 X 4 Truck rental, fuel: 2 weeks @ $100/day	1,400
Room & Board: 4 men X 12 days @ $60/day	2,880
Lab analysis: 1,000 samples @ $14/sample	14,000
Reporting, data compilation: 6 days @ $325/day	1,950
Drafting, typing, copying, maps	1,400
Administration, supervision, coordination	1,000
	$ 34,730
Contingency & Miscellaneous (15% of above)	5,210
TOTAL, Phase I:	$ 39,940
(Say	$ 40,000)

Phase II:

Detail grid soilsampling: 8 man/days @ $200/day	$ 1,600
Mag and EM Surveys: 14 man/days @ $300/day	4,200
Geologist (sampling, mapping): 12 days @ $350/day	4,200
Backhoe mob/demob	600
Backhoe operation: 5 days X 8 hrs @ $100/hr	4,000
Drilling 200 m of NQ core: $120/metre all inclusive (exploratory drilling of 3 - 4 holes)	24,000
4 X 4 truck rental, fuel: 2 weeks @ $100/day	1,400
Room & Board: 3 men X 12 days @ $60/day	2,160
Lab analysis: 400 samples @ $14/sample	5,600
Reporting, data compilation: 6 days @ $325/day	1,950
Typing, drafting, copying, maps	1,000
Administration, supervision, coordination	1,400
	$ 52,110
Contingency & Miscellaneous (15% of above)	7,815
TOTAL, Phase II:	$ 59,925
(Say	$ 60,000)

TOTAL, PHASES I AND II: $100,000

Respectfully submitted by

Hugo Laanela, F.G.A.C.
Consulting Geologist

July 30, 1986

Nanaimo, B.C.

Bain 1-4 claims report

REFERENCES

Carson, D.J.T., 1973: The Plutonic Rocks of Vancouver Island, Geol. Survey of Canada Paper 72-44

Laanela, H., 1964-66: Geological maps of E & N Land Grant between 40° 00' and 40°20' latitudes, 1":1/2 mile; for Gunnex Limited

Laanela, H., 1965-66: Mineral Occurrences on E & N Land Grant, Vancouver Island, B.C.; summarized internal company reports for Gunnex Limited

Laanela, H., 1963-65; Air-Borne Magnetic Anomalies on E & N Land Grant, Vancouver Island, B.C.; summarized internal company reports for Gunnex Limited

Muller, J.E., 1980: The Paleozoic Sicker Group of Vancouver Island, B.C.; Geol. Survey of Canada Paper 79-80

Stevenson, J.S., 1945: Geology and Ore Deposits of the China Creek Area, Vancouver Island, B.C.; in Annual Report of B.C.M.M., 1944, pp. A143-A161

CERTIFICATE

I, HUGO LAANELA, of 3657 Ross Road, Nanaimo, British Columbia, do hereby declare that:

1. I am a geologist, graduate of the University of British Columbia, Vancouver, B.C., in 1961 with a B.A. degree in Geology.

2. I am a Fellow of The Geological Association of Canada, and a full member of The Association of Exploration Geochemists, The Canadian Institute of Mining and Metallurgy, and The Australasian Institute of Mining and Metallurgy.

3. I have practiced my profession as a mining exploration geologist from 1961 to 1966 and 1973 to present across Canada and Western U.S.A. During 1966 to 1972 I was employed as a senior/regional geologist in Australia.

4. The information, opinions and recommendations presented in this report are based on my previous work and geological experience in the area.

5. I have no interest in the subject property of this report.

Dated at NANAIMO, BRITISH COLUMBIA, this 30th day of July, 1986.

Hugo Laanela

BAIN CLAIM GROUP
Alberni M.D., Vancouver Island, B.C.

GEOLOGY
Scale 1" : ½ mile (1:31,680)

Geological mapping by H. Laanela, 1964-66

Drawn by H.L., 1986.

FIGURE 4.

NTS 92F/2