

rough copy of report  
submitted by W. Howell  
Dec 187.

842085

The 'Waypial stack' appears to be an offset Wayside  
portion of the Southern Intrusive Body. The age of  
the offsetting fault is not known. The fault trace

has been described by Church (B.C.M.P.R. Prelim map - 1986)  
and is referred to hereafter as the "Church fault".

The projected trace is outlined by mag. highs believed  
to be wedges or stipes of serpentine along the trace.

If mineralization of the waypial shear zone predates  
the offset, the extension of the Waypial mineralized zone  
should be found within the southern Intrusive body

If mineralization of the waypial shear zone postdates the  
offset then the extension of the Waypial is potentially across  
the lake in the Greenstones exposed there.

If mineralization of the waypial is related to an episode  
of periodic movement of the offset then the entire trace  
of the Church fault and all structures leading into it

are potential 'en echelon' host locations for mineralization. Trench 87-T-32 exposes sheared argillites and cherty argillites, bleached, and clay altered rocks within the Church fault zone. the southern end of the trench exposes a hard silicified zone at least several feet wide.

Rapid water influx to the trench and unstable walls precluded the detail mapping of the trench and sampling was confined to rubble excavated from the trench.

# Notes for L.A.D

1. 1:5000 Mag Plot (SEE VERENA'S DWG) DOES NOT APPEAR TO CORRELATE MAG WITH PLOTTED FAULTS -

2. what happens if the wavyish shear pinches out and locally becomes a host zone for late stage Wb dyke? (i.e. upper part of stock) if dike zones are traced to depth and further N we might again

intersect a swelled structure.  
Dikes ~~should~~ follow shear zones. eg 37 - ~~wavyish~~

3. Mapping the shape (thickness of the <sup>unpinched</sup> shear on several levels may yield info as to morphology of the shear and allow the possible projection of another swell down dip to the N.

Notes to  
H.A.D.

The bounding faults of the 'Southern Intrusive Block', the small block around BL 5500 N and the 'Wayrich diorite' are all deep seated structures which may play a part in the development of the ore hosting veins and structures.

Consideration should be given to the feasibility and desirability of a series of holes across the Southern Intrusive exploring the area to a depth of about 150<sup>m</sup> and crossing the projected strike of the major faults suggested by the geophysical surveys and geological mapping. These holes could be in conjunction with and part of the exploration of structures within the diorite ~~area~~<sup>yielding</sup> a drilled section across the "Southern Intrusive Body".

## Conclusions & Recommendations

### Southern Intrusive Body

The Southern Intrusive Body is believed to be an extension of the main body of the Bralorne Diorite and ~~is~~ to underlie <sup>much of</sup> the southern extent of the claim block, including that portion of the claims south of Tucker Creek and <sup>north</sup> east of the town of Goldbridge. Southeast of the Bridger River Highway the ~~area~~ remains to be explored. Basic mapping, sampling and prospecting (including Mag & VLF-EM) ~~and~~ <sup>and</sup> ~~should~~ <sup>should</sup> be completed over this region.

P → North-west of the Bridger River Highway, the 1987 program has shown the presence of major faults, dikes, rhyolite granite, and anomalous gold (>1000 ppb) to be present (with 412, 413 - "Triplets"/DDH 87-4 area)

The presence of very little %c on the slope faces and the existence of up to <sup>more</sup> ~~greater~~ than 8m of compact glacial till beneath 20 to 30 cm of volcanic ash make normal geochem <sup>soil</sup>

geochemical surveys and evaluation techniques ~~virtually~~ <sup>subject to</sup>  
~~meaningless or at least uninterpretable.~~ difficult and highly unreliable interpretation.

P → ~~A combination of VLF  $\pm$  magnetometer <sup>surveys</sup> plots and the coincidence~~  
of Mag lows or high gradients with VLF conductors and  
superficial gullies or topographic depressions appear to  
offer the best indication of shear zones or fault traces.

The assumption is made that potential veins follow such  
shears or are related to them.

Several such zones <sup>within the Southern Intrusive body.</sup> can be identified from the  
current topographic and geophysical data and warrant  
further exploration by trenching and follow up drilling.

P → A "wedge" of Intrusive rocks located north of the  
garbage dump and bounded on the west by ultramafic sheared  
rocks associated with the Padwallader fault and  
bounded on the east by a presumed fault along the trace  
of the 1987 access rd.

also. Lots erratic, geochemically anomalous <sup>rock & soil</sup> samples  
a series of Back hoe trenches or a shallow drill 'fence'  
should be considered in order to evaluate till covered  
exposures of this highly favourable geological setting.

→ INSERT 'C' ←

Wayside Mine

Primary exploration of the underground workings  
have yet to be completed. Working, detailed sampling and  
mapping of the accessible workings should be undertaken  
during late spring or early summer and could be  
coordinated with the simultaneous dewatering and subsequent  
mapping and sampling of the flooded levels (#6 & #9 levels)

The depth potential of the Wayside mine has never been  
tested or evaluated. Given the close similarity with the  
Bralsome mine, serious consideration should be given  
to several drill holes exploring below the #5 level

"C"

A small block of Intrusive Rock is also present in the vicinity of Base line 5500 N. it is bounded by faults about which little or nothing is known. Very little can be said ~~about~~ <sup>about</sup> the Intrusive as much of it, particularly along the lower slopes (above the highway) are extensively till or drift covered.

This intrusive body and its boundary faults remain to be explored. It is suggested that a combination of backhoe and ~~se~~ shallow drilling be used to this purpose.

The boundary faults of the intrusive body



and North of the accessible workings.

→ INSERT 'B' ←

Intrusive Margins of Two Bob Creek area  
(Johns showing - Marcus adit area)

Repetitive or "en echelon" veins exist within the intrusive rocks along the faulted north east margin of the Waypelt Intrusive. Sporadic or erratic, <sup>highly</sup> anomalous gold-arsenic values occur, associated with ~~the~~ carbonate veins containing minor quartz or silicified zones. The <sup>quartzites in</sup> host lithologies, similar in mineralogy and texture and structural setting with the Bralorne mine and environment all ~~lead~~ lead to the credibility of this <sup>area</sup> ~~zone~~ as a zone of potential <sup>gold bearing</sup> veins.

The area has not yet been drill tested ~~to depth along the major~~  
A drill test of the area is warranted and should consider the "en echelon" nature of the veins and the potential for blind or hidden veins developed along and subsidiary to the Major Two-Bob-Fault.

(B)

The <sup>subtlety of</sup> surficial expression of veins and major sheared structure within the development of the Waypole mine can be clearly demonstrated.

(eg - the 'o' portal and workings) It is of paramount importance in future surface exploration to recognize that a major vein or structural element may have very little or no surficial or morphological expression and, further, to recognize that the nature of the tills and ash layers effectively mask geochemical expressions of such veins and structures.

It has been clearly shown also that <sup>aquiferous</sup> vein systems sub parallel to the waypole exist <sup>in the H.W. of the mine section</sup> and may have other structural elements present also. (eg Commodore & 3-T veins and the small unnamed adit <sup>vein</sup> adjacent to the highway west of and below the #4 portals.)

'B'

In addition, the 'East vein' exposed in the #5 level and an anomalous small quartz vein and altered shear in DDH 87-1 demonstrates the <sup>presence</sup> existence of gold bearing anomalous veins and structures to be present also within the foot wall ~~area~~ of the mine section also.

P → At least two other areas (between the Woyriels and 3T Adits) have a subtle outcrop expression similar to the footwall of the 'O' portal, but the presence of ash, till and large boulders on a steep rocky hillside make exposures very difficult to create by artificial or mechanical means.

It is suggested that a series of 150<sup>m</sup> holes be drilled at -45° <sup>South westerly</sup> along a section across the Woyriels diorite in order to "fence" the intrusive in such a manner as to explore all structures sub parallel to the Woyriels mine in this area.

Two Bob Trench area.

Several trenches and 2 shallow drill holes have been completed in the Two Bob vein system.

Results have shown highly anomalous gold and arsenic values to occur (Au to ~~4200~~<sup>2600</sup> ppb. As to 2700 ppm) with a sheared and silicified premineral dike hosted by the shales of the Hurley fm. ~~shales below~~

Samples collected from this area by previous operators have shown the presence of ~~erratic~~<sup>erratic</sup> spectacular gold mineralization to be present.

The zone should be followed with a series of shallow drill holes and backhoe trenches along its northwards strike direction. secondary small 'in echelon' veinlets and stringers within the shear zone and the host shales suggest the regional structural model

to be operational on the 2 Bob Vein also.

It is therefore of utmost importance to map the structures in detail. The presence of a faulting or anastomosing structures may define zones of improved grade and width.

## South Side

The "Southside" area is comprised of an area on the south-eastern shore of Carpenter Lake underlain by <sup>Pioneer</sup> greenstone and cherts of the Birdy River group.

The area is situated across from the Wayride mine. A fault trace, colinear with the Wayride shear zone has been mapped across this area. ~~Wayride shear zone~~

Cherts and argillaceous cherts outcropping on the southeastern bank of Carpenter Lake exhibit minor qtz veins and weak variscite + carbonate alteration. <sup>occasional</sup> rocks are geochemically weakly responsive for Au and As in the vicinity of the fault trace.

~~The <sup>intersection</sup> projection of the Wayride fault shear and projection of the "Ferguson fault" from the Bralorne area is an area for further prospecting and evaluation.~~

~~Similarly, the projection of the Wayride shear structure~~

to the McDonald Lake area (the Western property boundary)  
is another of the areas for focussing further prospecting.  
Geochem samples previously collected from the area should be  
analyzed. Geochem lines should also be run for Mag and  
V.F. - EM.

P → Trenching on adjacent ground east of McDonald Lk. (Norma claim)

has revealed quartz veins,  $\text{nanoprite} \pm \text{qtz} / \text{carbonate} \pm \text{silica}$   
alteration accompanied by <sup>variable amounts of</sup>  $\text{opite}$ ,  $\text{arsenopyrite}$ ,  $\text{pyrrhotite}$ , and  $\text{chalcopyrite}$   
to be present, primarily along contacts of black  
argillaceous cherts and ~~greenstone~~ <sup>or</sup>  $\text{greenstone}$ , ~~and~~ fractures  
or shears developed within the  $\text{greenstone}$ .

Lindsay ck. marks a primary shear or structural  
direction of this mineralization. The extension of which  
across McDonald & R valley is co-linear with

the fault extending the Wayside shear to the south-east. There is a ~~strong~~<sup>distinct</sup> possibility that this is a single continuous shear zone with the possibility of mineralized <sup>secondary</sup> qtz veins developed along the primary shear ~~direction~~<sup>zone</sup>. Such quartz veins have not yet been found, but their presumption is the basis for an alternate focus of exploration effort and attention.

Following the analysis of soil samples collected during the 1987 program, VLF-EM & Magnetometer surveys should be completed and followed by a program of backhoe trenching ~~followed~~<sup>followed</sup> by drilling. Concurrently Mapping, sampling and prospecting should extend coverage southwards along the ridge and flanks of the high ground between McDonald Lk and Bridge River.



# WAYSIDE REPORT.

## SUMMARY

### INTRODUCTION

100,000 100

location, access topography ✓

Property definition. ✓

History ✓

Current Work Program. ✓

References.

GEOLOGY  
Mineralization  
MINERALIZATION

Regional Geology ✓

Local Geology ✓

Mineralization

Stibich ✓  
Waspick ✓  
Two Bob - John ✓  
Two Bob ✓

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### ✓ GEOCHEMISTRY ✓

### GEOPHYSICS

Magnetometer ✓

VLF-EM ✓

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## CONCLUSIONS AND RECOMMENDATIONS

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- procedures.

geol. results - geol.  
- mag  
- VLF.

## INTRODUCTION

### LOCATION AND ACCESS

The Wayside property is located (figure 1) at the west end of Carpenter Lake approximately two miles from Goldbridge, population approximately 70, in the Lillooet Mining Division.

Access to the property is from Vancouver via the Trans Canada Highway to Lytton then north to Lillooet, and west to Goldbridge. A second route via the Squamish Highway through Pemberton and Lillooet is access during the summer months only. The Trans Canada route is approximately 400 kilometres whereas the route via Pemberton is approximately 250 kilometres.

### CLAIM AREA, STATUS AND OWNERSHIP.

The Wayside property and adjacent properties are shown on figure 2. The Wayside claim area (Figure 2) is generally described as the Wayside Claims, the Lake Claims and the Wayside Extension Claims.

There are 67 claims in total of which 29 are reverted Crown Granted claims and 38 are located claims.

The claims are owned equally by Amazon Petroleum Inc. and Carpenter Lake Resources. Amazon Petroleum Inc, by making certain specified expenditures on the property prior to mid 1987 can earn a maximum of 60% of the Wayside property.

Chevron has an agreement with Amazon & Carpenter Lake whereby, for the expenditure of specified sums Chevron can earn a 60% ownership of the property.

?  
→  
No. of claims

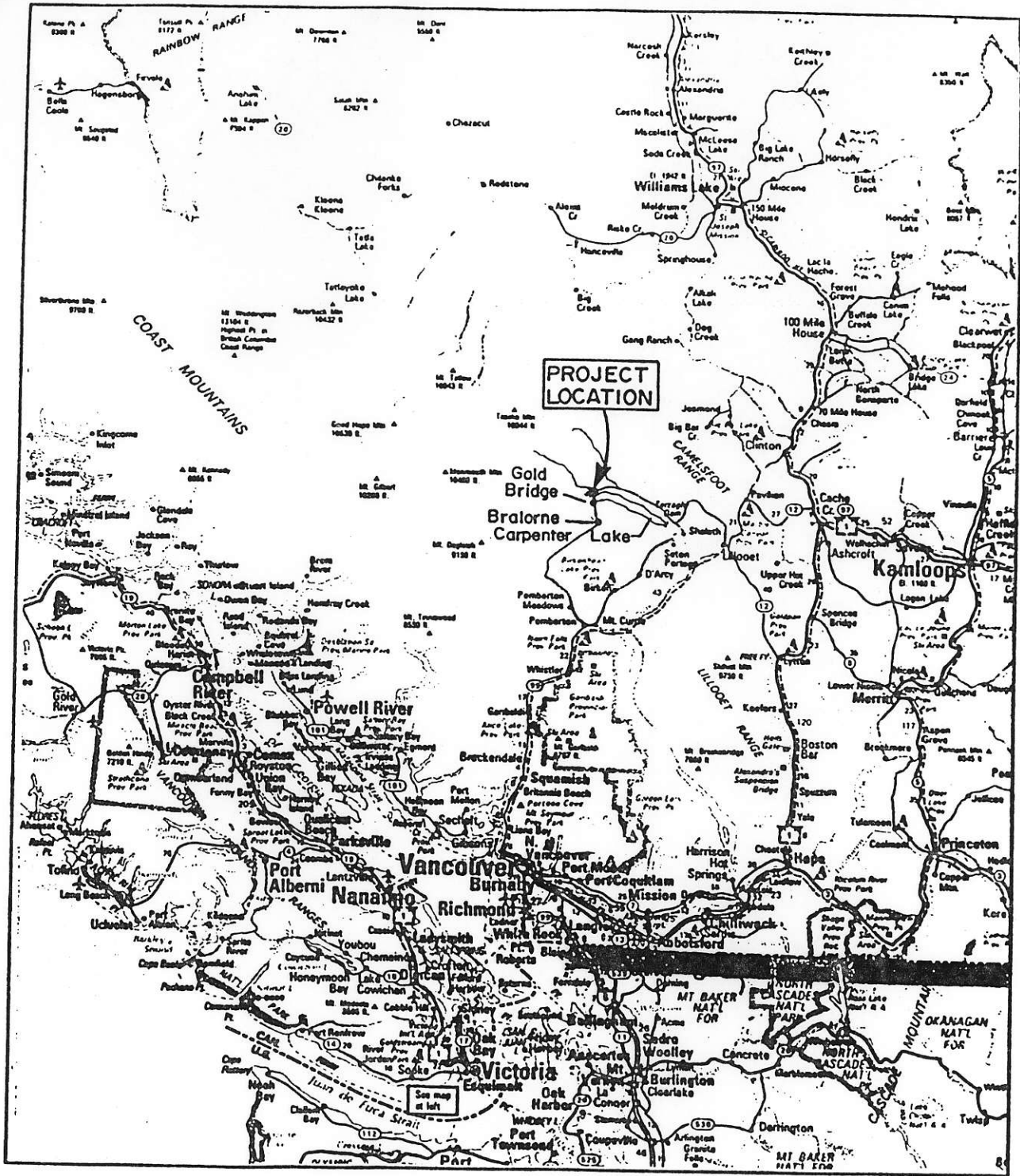
I.A.D.  
7.7

TABLE 1

LIST OF CLAIMS

<u>NAME</u>	<u># OF UNITS</u>	<u>RECORD #</u>	<u>EXPIRY DATE</u>
LAKE #3	1	3008	Nov 2nd 1986
LAKE #2	1	3009	Nov 2nd 1986
LAKE #1	12	3010	Nov 2nd 1986
LAKE FR. #1	1	3011	Nov.2nd 1986
LAKE FR. #2	1	3012	Nov 2nd 1986
HILLSIDE #4	1	989	Oct.1990
RIVERSIDE			
HILLSIDE FR.	1	990	Oct.1990
LODGE EXT.#1			
LODGE EXT. FR.	1	1022	Nov.1990
CABINET #2	1	1023	Nov 1990
WAYSIDE B FR.	1	1044	Nov.1990
PORT FR.	1	1045	Nov.1990
ARGON	1	417	Jan.1992
RADIUM	1	418	Jan.1992
HELIUM	1	419	Jan.1992
QUEEN CITY FR.	1	420	Jan.1992
RODEO	1	421	Jan.1992
COMMODORE FR.	1	422	Jan.1992
LODGE	1	423	Jan.1992
ALPHA	1	424	Jan.1992
BETA	1	425	Jan.1992
GAMMA	1	426	Jan.1992
CABINET	1	427	Jan.1992
COUNSEL	1	428	Jan.1992
NEWPORT	1	429	Jan.1992
CAMP DENISON	1	430	Jan.1992
SUN	1	431	Jan.1992
CITY #1	1	432	Jan.1992
SPRING A	1	433	Jan.1992
SPRING FR.	1	434	Jan.1993
SPRING B	1	435	Jan.1992
SPRING C	1	436	Jan.1992
LODGE B	1	437	Jan.1992
RODEO FR.	1	438	Jan.1993
WAYSIDE #2	1	439	Jan.1992
LODGE #2 FR.	1	440	Jan.1992
WAYSIDE EXT.#2	18	1089	Jan.1992
WAYSIDE FR #1	1	1247	Jan.1992
WAYSIDE EXT #2	1	1248	Jan.1992
WAYSIDE FR. #3	1	1249	Jan.1992

*Larry - is this complete?*

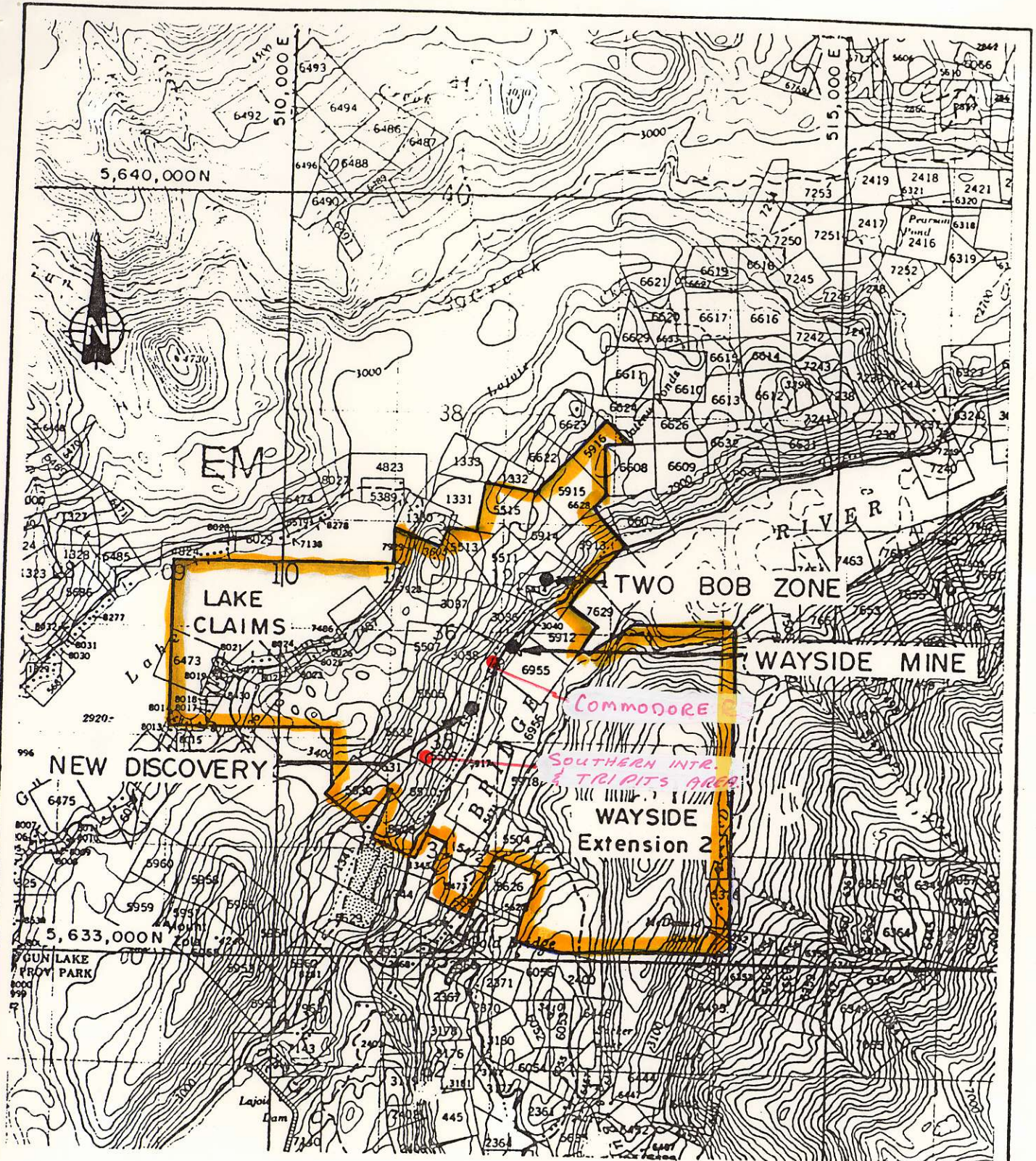


*OL S MILAR*

**PROJECT LOCATION PLAN**

**BEACON HILL CONSULTANTS LTD.**

Date	FIG. NO. <b>1</b>
Apprvd.	
Project	



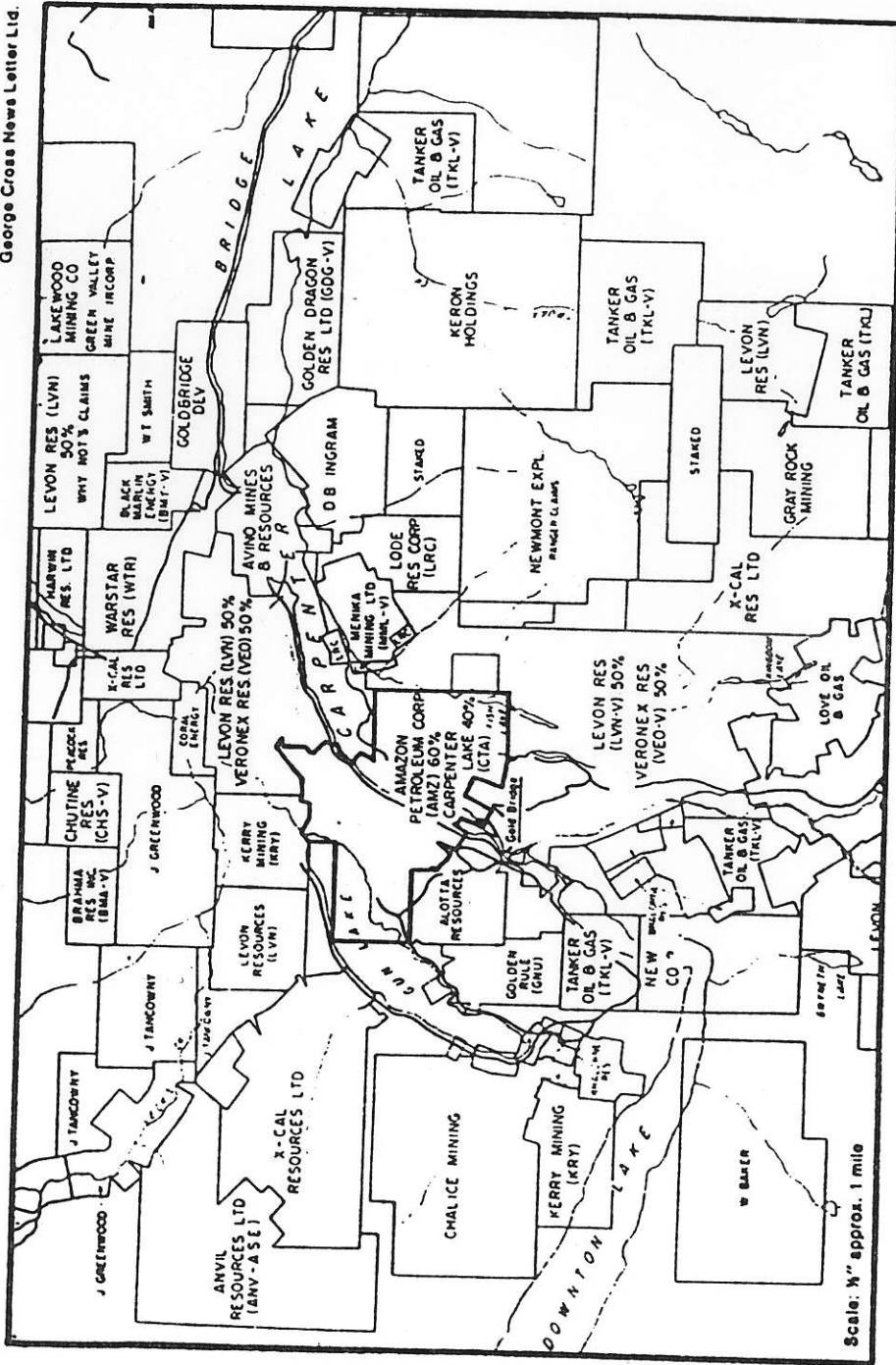
*OR SIMILAR*

# WAYSIDE PROJECT CLAIM AREA

**BEACON HILL CONSULTANTS LTD.**

Date	FIG. NO.  2
Apprvd.	
Project	

Courtesy of  
George Cross News Letter Ltd.



# ADJACENT PROPERTIES

*OR SIMILAR*

## BEACON HILL CONSULTANTS LTD.

Date	FIG. NO.  3
Apprvd.	
Project	

## INFRASTRUCTURE

The area has an abundance of water, in both Carpenter and Gun lakes, and a hydro line running through the property. The town of Goldbridge is suitably located for providing a base for accommodation and presently supports a hotel, motel and a number of small businesses. It is believed that the town would welcome increased activity in the area and is pleasantly located with easy access to Vancouver, and the ~~hinterland~~  
of B.C. INTERIOR

## HISTORY (after TOLBERT 1980)

During the period since the discovery of the Wayside deposit about 1900, the property has gone through two periods of exploration/production, one period of exploration and two periods of neglect.

Exploration and production occurred from:

1906 to 1937

1946 to 1953

and further exploration has occurred from 1972 to the present day.  
Exploration and production during the period 1906 to 1937 was spasmodic.

A typical description (Kelly 1972) of information from the Minister of Mines report 1924 where assays were reported from a number of workings.

## PHYSIOGRAPHY AND VEGETATION

The property occurs within the Coast Ranges of B.C. The known mineralization on the property occurs in the northeast - southwest trending plateau between the Bridge River/ Carpenter Lake valley and Gun Lake. (Plate 1, Figure 2)

Elevations range from 660 metres in the valley to over 1000 metres on the plateau.

On the southeast corner of the claims elevations rise to over 1200 metres before descending steeply to the north-south trending MacDonald Creek Valley.

The main vegetation on the property consists of an open forest of Ponderosa Pine and Douglas Fir with Poplars, Birch and Alder occurring in logged, burnt or wet areas.

The Bridge River valley is now part of the Carpenter Lake reservoir which floods the property to the 665m elevation from mid-July to March each year.

### PREVIOUS WORK

- |           |  |
|-----------|--|
| 1914-37   | - Wayside Mine produced - 43,094 tons ore<br>5,341 oz. gold<br>842 oz. silver                            |
| 1937      | - C.E. Cairnes-Geological mapping Bridge River - area<br>G.S.C. Memoir 213                               |
| 1946-53   | - Wayside - exploration and possible production 1000<br>tons produced.                                   |
| 1971-1973 | - J.P.Elwell dewatered/explored Wayside mine to 8th<br>level obtained up to 0.83 ozs Au/ton over 3 feet. |
| 1974      | - Charles A.R. Lammle-preliminary report + map<br>- 110 soil samples along highway analyzed for gold.    |



NOTE: Because of thick glacial debris soil sampling should be site specific.

- ground magnetometer survey along highway.

NOTE: Magnetometer results seem to map the diorite and Bridge River Group very well.

- two sites noted for oxidized porphyritic rock, "New Discovery" and above D.D.H. 84.07.

NOTE: A boulder of massive pyrite in chert was located at the second site (sample 59R).

NOTE: Located roadside outcrop of oxidized perphyritic volcanics assaying 0.26 oz. Au/ton and 0.10 oz Ag/ton over 45 feet.

1975 - D.D.H.75-A2 first hole in massive sulphides of 'New Discovery Zone'.

1979 - 1982 - J.P.Elwell - 3 reports covering diamond drilling and assaying.

- 9 holes in 'New Discovery Zone' total 2239.9 m (7348.9 feet)

- 1981-Geotronics- I.P. & S.P. survey

- anomaly A correlates very well with the 'New Discovery Zone.'

NOTE: The 'New Discovery' is non-economical, massive pyrite:

a) surface sampling

b) holes 84-10, 11

c) holes 80-S3, S2

- the north end of anomaly A is probably faulted (left lateral) to the 84-04 area.

NOTE: anomaly A over 84-04 correlated with a conductor of Glen White.

- the south end of anomaly A is probably faulted (right lateral) to become anomaly B.

NOTE: if anomaly A, over hole 84-04 and anomaly B are fault extensions of the main anomaly A, possible they are merely massive pyrite also.

1983 - R.H.Seraphim-Geochemistry for gold over the Wayside diorite and onto Bridge River Group west of the diorite

- 1984 - A. Halim Arik-Report on drilling, 1984 four holes on the "New Discovery" total = 825.4 m (2708 ft.)
- 1984 - Geotronics-EM and geochemistry.
  - North end and east of Wayside diorite.
  - good correlation of geochem and E.M.
- 1984 - Glen White-Geophysical report for downhole and pulse E.M.

#### SUMMARY OF 1985 EXPLORATION

- Geological mapping-North end, H. Arik east of base line
  - R.J. Morris west of base line
- South end, R.J. Morris
- all roads
- White's grid
- chain and compass survey - 11,176 m (36,666.7 ft = 6.9 mi.)
- mostly road
- Trenching - 453 m (1,486.2 ft.)
- New road - 798 m (2,618.1 ft.)
- Old trenching and adit-three old trenches were located.
- one old adit was found
- Geochem-324 soil and rock samples
- Diamond drilling - 7 holes totalling 1130.2 metres
- New sections, White's grid
- New detail on 'New Discovery'

Summary of 1986 Exploration - - Beacon Hill  
CONSULTANTS.

- PREPARATION OF ORTHOPHOTO COVERING PART OF THE PROPERTY
- GEOLOGICAL MAPPING COVERING THE N.E PART OF THE PROPERTY AT 1:5000 SCALE BY R.S. TOLBERT. (BEACON HILL CONSULTANTS)
- COMPILATION AND REVIEW OF PREVIOUS DATA

Summary of 1987 Exploration

- CITICORP CANADA RESOURCES.
- PREPARATION OF COMPLETE ORTHOPHOTO
- GEOCHEM, VLF-EM & MAGNETOMETER SURVEYS OVER THE WAYSIDE AND ADJACENT AREAS ON THE NW SIDE OF CARPENTER LK.
- GEOLOGICAL MAPPING AT 1:2000 SCALE OVER THE SAME AREA AND COMPILATION WITH TOLBERTS 1986 MAPPING MAPPING BY W.A. HOWELL & M. MCPHERSON.
- GEOLOGICAL MAPPING AT 1:5000 SCALE OVER PORTIONS OF THE SE SIDE OF CARPENTER LK. BY M. MCPHERSON
- TRENCHING & ROAD BUILDING PROGRAM - DETAILED SAMPLING & MAPPING OF TRENCHES.
- DIAMOND DRILL PROGRAM, LOGGING OF NEW HOLES AND RELOGGING OF OLD HOLES BY M. MCPHERSON & L. MOFFAT,

## CURRENT WORK PROGRAM

GND

Base maps were established from an orthophoto base prepared by Eagle Mapping Services from photos taken in 1985.

the base map was at a scale of 1:5000 with 10 m contours and UTM coordinates illustrated.

Field operations commenced May 4, 1987.

Five Carefully cut and picketed, <sup>east-west</sup> base lines were established every 500 meters, on the north west side of Carpenter Lake, approximating

the U.T.M. <sup>map</sup> grid. ~~Five such east west baselines were thus~~

~~established.~~ Using the base lines for control and location of the end points, a clinometer and altimeter were utilized to establish grid lines along suitable contour intervals.

~~using~~

Soil samples were collected every 50 m along <sup>these</sup> contoured grid lines ~~established~~ and stations established at each sample location.

~~using altimeters and inclinometers.~~ The soil sample stations and

the lines thus established served as the location for subsequent

VLF-EM and magnetic survey stations. ~~the~~

This style of grid layout on a relatively moderate slope permitted a uniform density of sampling with reasonably good

control of location and permitted a substantial cost saving over more conventional rectilinear grid systems.

A regular system of old logging roads and skid trails in the northeastern part of the grid area also facilitated control of sample location and / commonly provided ready access to soils below the ash layer.

During the completion phase of the geological, geochemical & geophysical surveys, a trenching program utilizing a Caterpillar "CAT 225" excavator was used to excavate selected areas below the

(from Talbot '86)

## GEOLOGY

### Regional Geology

The Wayside Property is <sup>IN</sup> within the ~~Goldbridge-Bralorne Mining District~~ and is part of the Coast Geanticline tectonic element of the Canadian Cordillera.

<sup>GOLDBRIDGE-BRALORNE AREA</sup>  
The ~~district (Figure 5)~~ is dominated by the eugeosynclinal volcano-sedimentary Bridge River Group of Triassic (and possibly upper Paleozoic) to upper Jurassic age which consists of:

Jurassic - Hurley Formation

Upper Triassic - Pioneer Formation

Triassic - Noel Formation

Triassic to possibly Paleozoic - Fergusson Series. (Ref. Cairnes 1937)

Intruded into this island arc volcano-sedimentary package are the northerly trending upper Jurassic Bralorne intrusives, which are bounded in places especially to the west by serpentinites possible related to the intrusives.

The upper Paleozoic (?) Fergusson Series consisting of argillaceous, tuffaceous lithologies, cherts, argillites, minor limestones and perhaps volcanics is representative of a eugeosynclinal island arc depositional regime which dominated this area.

During the early Mesozoic abundant andesitic and basaltic volcanics were extruded from island arc volcanic centres into adjacent troughs and basins. Thick accumulations of terrigenous and volcanogenic sediments were also deposited from the arcs into the basin. The Pioneer Formation volcanics and Noel Formation sediments, volcanoclastics and volcanics are representative of this period.

The Hurley Formation argillaceous and tuffaceous strata was deposited into the Tyaughton Trough successor basin which was established following the mid-Jurassic tectonism.

The Bralorne intrusions of upper Jurassic age with a composition varying from gabbro to augite-diorite to soda granite are part of the Coast Plutonic Complex which is dominated by the Pacific Orogen.

This tectonism has imparted deep steeply dipping block faults and shear zones including the Cadwallader Shear Zone and the Fergusson Creek Fault.

<sup>Carbonatized</sup>  
~~Carbonized~~ serpentinite occurs on the western margin of the Bralorne Intrusion adjacent to the Cadwallader Shear Zone.

Quartz-carbonate-talc  $\pm$  mariposite ('epi-listwanite' - Kashkai, 1965) alteration associated with many of the veins in the district may be

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related to fluids that have emanated from these and similar unexposed serpentinite bodies.

Important late stage (?) feldspar porphyry, ~~rhyolite~~ and 'albitite' dykes and sills occur throughout the district and are often associated spatially at least with mineralized veins.

#### Local Geology

Geological mapping was undertaken by Morris and Arik in 1985, *Along the slopes*

*of the northwestern shores of Carpenter Lake, from the*

*"New Discovery Zone" to the Two Bob Vein Zone.*

*R.S. Talbert in 1986 mapped the upper portion of the same slopes and continued mapping to the west and north west to the Gun Lake Road overlooking Gun Lake.*

*Talbert also reinterpreted the mapping by Arik & Morris (1985).*

*The current program (1987), remapped in greater detail, outcroppings within and extending beyond the area done by Arik and Morris (1985).*

*The current mapping was combined and compiled with Talbert's mapping and is presented at 1:2000 scale in four sheets, figs — to — appended to this report.*

*In addition, portions of the property on the southeastern*

shore of Carpenter Lake. were mapped at 1:5000 scale and are presented in fig. — as part of the overall property geological map.

Within the detailed map area on the northwestern side of

Carpenter Lake.

The centre and south of the mapped area is dominated by Bralorne intrusives of diorite to gabbro composition (map Unit b). To the south of the main 'Wayside Diorite Stock' greenstones, (unit 1) cherts (unit 2) and interbedded greenstone, chert and argillite dominate.

To the northeast of the 'Wayside Stock' argillites, minor sandstone and conglomerate (Unit 6) appear to overlie cherts (Unit 2) and volcanics (Unit 1).

Numerous erratic rhyolite to albitite dykes intrude the above units.

Morris (1985) notes that the volcano-sedimentary package of rocks strikes north-south and dips steeply with a younging direction to the east.

Observations by Tolbert (1986) indicate polyphase folding has occurred dominated by a major phase with tight folds and near vertical north-south trending axial planes.

Such observations are most evident in exposures of the chert & cherty argillite (unit 2). The degree of deformation appears significantly shallower and less reclined in the less within the argillite and flaggy limestone (unit 3 & 4.)

The argillites with minor sandstone, conglomerate and limestone (Unit 6) at the north end of the mapped area may unconformably overlie units 2, 3 and 5 and represent the Hurley Formation of Jurassic age (Cairnes 1937).



## Mineralization

The nature of occurrence, lithologies, mineralization and general tenor of the 'ore' at the Wayside mine closely parallels that reported and observed at the Bralorne mine.

### Wayside

(10,11)

Nine adits were driven on the Wayside vein (Figure 3) of which six are accessible (Table 1). In addition a -56 degree winze extends from the No. 5 level to the No. 7, 8 and 9 levels. These latter three levels are presently flooded. No. 5 level is approximately 40 ft. above lake level.

Up to 1937 5,341 oz. of gold and 842 oz. of silver were recovered from 43,000 tons of ore.

The mineralized zone extends over a vertical distance of 1000 feet with an indicated extension below the ninth level. (Sookchoff, 1984)

Examination by Tolbert (1986) and confirmed by Howell & Dick (1987)

has shown mineralization within the Wayside adits to occur as free gold, arsenopyrite, pyrite and minor tetrahedrite

(Tolbert reports minor stibnite but this has not been observed by Howell or Dick)

within quartz-ankerite veins which pinch and swell and are anastomosing within shear zones which have a few to

12 m widths. A number of phases of shearing and vein emplacement appear to have taken place.

Quartz-carbonate  $\pm$  talc  $\pm$  mariposite (epi-listwanite) alteration occurs within and adjacent to the shear zones.

The Wayside Vein has a strike of 150 to 165 degrees with a dip of 50 to 55 degrees east.

With the exception of DDH 87-1 and a few brief examinations of the workings, the existing wayside structure was not explored underground during the 1987 program.

### Commodore and 3T Veins

These two structures were first explored by short adits during the early years of exploration on the property.

P  $\rightarrow$  The 3T adit is caved at the portal and is not accessible.

P  $\rightarrow$  The Commodore adit is still accessible. The Commodore vein was exposed by bulldozer trenching circa 1975 and was re-exposed in greater detail and mapped @ 1:100 scale as part of the 1987 program. Earlier reports of up to 19 oz. Au over 3 ft have been reported from a drill hole (75-A-5) in this area. The collar location and core from

this hole have been lost.

Based on 1987 mapping and trench exposures,  
2 short drill holes were completed on the Commodore  
structure as part of the 1987 program.

( DDIT 87-5 & 87-6 )

Both the Commodore and 3T veins are parallel or  
sub-parallel to the Wayside structure and may  
represent distal portions of veins which eventually anastomose  
with the Wayside shear or separate veins in an  
'en echelon' type setting relative to the major bounding west  
fault of the 'Wayside diorite'. The 'en echelon' model  
is preferred as such development was the style of the  
Bralorne vein systems. The 'en echelon' model appears to be  
functioning elsewhere on the Wayside property (i.e. Two Bob &  
John's Slowing areas), and limited drilling (1980-5-10)

did not appear to cut the down dip extension of these veins if they are anastomosing with the Main Woyiale Shear zone.

Other Structures exist between the Woyiale and Comsolone veins which have a subtle surface expression (as does the Woyiale) and which remain to be tested.

### Southern Intrusive body

Magnetometer surveys and VLF-EM surveys have indicated a structure cutting the southern Intrusive body and sub parallel to the Woyiale Structure, (old wheelbarrow adits)

Drill Hole 87-3 located the shear zone as predicted but failed to reveal significant mineralization or alteration within that part of the zone tested by drilling.

The Geophysical data suggests that other parallel shear zones may exist.

Within the Southern Intrusive body,

Assays of up to 4200 ppb Au have been obtained  
check this

from relatively minor shear zones and corresponding

weak VLF-EM & mag anomalous areas (TRI PITS area)

A short Drill Hole (87-4) did not confirm the surface assays but may have passed beneath the plunge of the poorly exposed mineral zone.

### Upper Two Bob & John's Shaving area

located along the eastern margin of the 'Wayside district'

a series of carbonates with minor quartz fracture controlled

or shear bounded zones appear to intersect the

bounding fault in an 'en echelon' manner. <sup>INSERT "A"</sup> <sub>^</sub> The style

of emplacement is viewed as similar to that observed

on the Wayside zone and at the Commodore vein and

trench. One such vein has been exposed

(Marcus Adit)

underground in an old adit, believed to date to

the early part of the century (© 1910-1913)

Mineralization in this area appears to have less quartz than other mineralized areas and Au values are generally correspondingly lower also. (few to several hundred ppb Au)

It should be noted, <sup>however,</sup> that the highest value obtained in the soil geochem survey (JB-83, <sup>?</sup> 1200 ppb Au) was obtained from this area.

The Two Bob Fault zone is marked by a deep ravine along the Eastern margin of the Wapiti diorite, <sup>(unit 6)</sup> and the Western margin of the Hurley argillite (unit 6)

(INSERT ON PREVIOUS PAGE AS MARKED.)

### Two Bob Vein Zone

The Two Bob Vein Zone lies approximately 200-250 m east of the Two Bob fault and the Wapiti diorite.

The zone is entirely within the Hurley argillite (unit 6)

The zone was identified by earlier exploration programs and some trenching completed during 1985 and 1986.

The 1987 program on the Two Bob area has clarified the information on the zone in several areas. The very strong NE trending EM anomaly is most likely the result of a buried 4" steel pipe exposed in new trenches, old trenches and occasionally on surface along the trend of the previously reported anomaly.

The zone has been shown to be ~~largely~~ confined to a premineral feldspar porphyry dike up to at least 5 or 6 meters wide. The dike has sheared margins often containing quartz and variscite, pyrite/carbonate pools and lenses. Post emplacement, the dike has been sheared and broken and subjected to quartz-carbonate alteration. Arsenopyrite, pyrite and gold is believed to be introduced at this time. Secondary quartz filled structures are observed in the trenches trending north westerly and dipping to the north east. Whereas the primary structure (the dike) is emplaced on a north-south direction.

One such secondary quartz <sup>carbonate</sup> vein is exposed in  
an old trench (T-86-5) the vein is up to 15 cm wide  
and is strongly anomalous (up to ~1900 ppb Au)  
the secondary veins are believed to be part of an 'en echelon'  
style of development or tensional features along the primary  
structure, the shear zone containing the felsic porphyry dikes.  
Reactivation of the shear zone <sup>is believed to</sup> have created the environment and  
channel ways for the subsequent mineralization from deep  
seated sources probably related to the Two Bob fault  
and Woychie mineralization. The deep seated source is  
extrapolated from the presence of a monomineralic assemblage, the  
lack of Antimony mineralization (present in deposits to the east),  
the apparent juxtaposition of Triassic Jurassic Helderberg fm against  
Paleozoic Fergusson cherty argillites indicated major vertical movement  
within the local lithologies.



# GEOPHYSICS

## VLF-EM SURVEY.

A VLF-EM Survey was completed over the gridded area utilizing a GEONICS EM-16 instrument which ~~measures~~ <sup>measures</sup> the variation of in-phase and out of phase components of Very Low Frequency Radio Waves transmitted from several locations by the U.S. military facilities.

Readings on the Wayzide property were recorded for 2 stations, Annapolis and Seattle.

Data were recorded and treated by the "Fraser filter" technique, an averaging formula which tends to accentuate broad trends but cancels out local or weak fluctuations.

The results of the survey were plotted in graph form and Fraser filtered values are shown in contoured plans presented as figures — to — appended to this report.

a striking pattern of negative and positive zones  
were shown to correlate with areas of known mineralization  
and structural components of the property. The  
patterns demonstrated by the V.L.F. survey were used  
to establish 2 preliminary drill holes in the South-  
western portion of the grid area and to help determine  
areas targeted for future detailed exploration.

## MAGNETOMETER SURVEY

A magnetic survey was completed over the gridled area. It is plotted at 1:2000 scale and is presented in contoured form on Figs. — to — appended to this report.

The survey measured total field strength at each grid station and the estimated mid point between stations. The data were recorded using two EDA.

"OMNIMAG PPM 300 Total Field" Magnetometers.

The instruments have a built in microprocessor and record the readings at each station. By setting one instrument as a base recording station, taking readings at regular intervals, (every 10 seconds) and synchronizing the built in clocks of both instruments, it then becomes a simple procedure to connect both instruments through a printer at the end of each survey day.

and, utilizing the program merging capability of the instrument, print out in a very short period of time a connected table of survey readings and a graphed profile of the readings. Both total field strength and gradient, (rate of change) <sup>are graphed.</sup> Checks were made at the commencement and end of each survey day at a common station. Repeatability throughout the survey varied between 0 and 12 gammas.

Results of the survey produced generally gently rolling or undulating contoured values. A few areas of very high <sup>or low</sup> relief locally correlate well with serpentine bodies or faults associated with them.

The trend of high values across the western part of the survey on SHEET 2 is believed to trace a major fault affecting the 'Wayside' stock from the main.

Southern diorite body. North westerly trending low values and related linear ~~zones~~<sup>trends</sup> are interpreted as faulted or sheared zones - cutting or abutting the major north east fault (the Church fault) a change in lithologies from greenstones or cherts of the Ferguson series to the diorite is believed to occur across the Church fault. Block faulting along the north westerly mag. low trends has again brought cherts and greenstones in contact with the diorite. of particular interest are <sup>linear</sup> areas of mag lows within the diorite. Such zones are considered shears and potential vein locations.

The magnetometer surveys used in conjunction with the VLF-EM Survey appear to successfully outline and allow extrapolation of lithologic and structural contacts.

## Geochemistry

A total of \_\_\_\_\_ soil and ~~rock chip~~ <sup>geochemical</sup> samples were

collected and analyzed for gold by fire assay preconcentration with an atomic absorption finish technique, and for 32 elements including Al, Ag, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg,

K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Sr, Ti, Tl, U, V,


W and Zn by I.C.P. techniques. The analytical methods are abundantly described in the literature.

TP In addition, \_\_\_\_\_ rock samples were collected from selected outcroppings of bedrock or from trenches and subjected to analysis similar to that used for soils. All samples which ran greater than 1000 ppb Au were routinely assayed for Au.

All analyses were performed by Chemex Labs, 212 Brooksbank Ave. North Vancouver B.C.

Soil samples were collected at 50 meter intervals along the previously described grid system. Holes were dug using a narrow, short handled "track shovel" measuring approximately 6" x 12", to below the

volcanic

ash layer which blankets the Bridge River area, to a <sup>commonly</sup> depth of 60 to 100 cm. The soil was collected using a stainless steel garden trowel and placed in a suitably marked and identified kraft paper soil bag. Soil, slope, <sup>other</sup> geomorphic, lithologic, biogenic, and hydrological data was collected onto a computer formatted data card at each soil or rock sample site. The depth of ash in most cases precluded digging very deep into the underlying paleo-soil. Road cuts and cut banks ~~on the property and in the area~~ ~~commonly~~ show that up to several meters of compact glacial tills commonly underlie the ash layer. The tills occasionally are present in thicknesses exceeding 8 m.  Within the <sup>till</sup> ~~section~~ <sup>section</sup> the lowermost tills are commonly exceptionally hard, compact, blue-grey boulder tills, ~~believed to be a basal type till.~~

The combination of the ubiquitous ash layer and the presence of the tills appears to be responsible for the <sup>generally</sup> erratic & suppressed nature of the geochemical results.

Results for Gold Silver and Arsenic<sup>in Soils</sup> are presented on  
map form in the appendix. Results for all three elements  
were highly erratic and no apparent patterns were discernible.  
A threshold anomalous value of 10 ppb ~~ppb~~ was arbitrarily  
chosen for Gold. A threshold anomalous value of 1 ppm ~~ppm~~  
was arbitrarily chosen for Silver. A threshold anomalous value of  
25 ppm ~~ppm~~ was arbitrarily chosen for Arsenic. Results for  
the elements were presented but no detailed analysis of results  
has taken place at time of writing. Soil samples taken from  
road cuts or trenches well below the overlying ash layers were  
generally more credible than those taken from soil pits.