

81-#993 - 9767

Geological and Geochemical Assessment Report

on portions of the

HIDDEN CREEK GROUP

(Mike, Julie, CG, Last, Maj B and Maj C Mineral Claims)

Situated

13 air kilometres Northeast of  
Yale, B. C.

New Westminister Mining Division

N.T.S. 92H/11W

Latitude 49°40'N Longitude 121°20'W

Field Work from August 1 through August 24, 1981

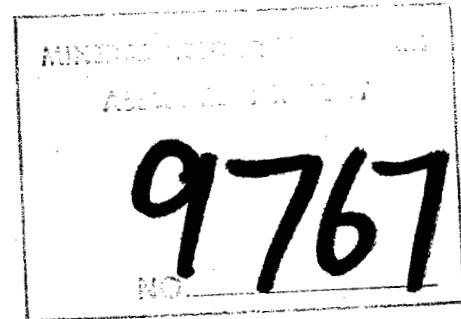
for

AQUARIUS RESOURCES LTD

Report by

D. G. Cardinal, P. Geol.,  
and

B. P. Fowler, B.Sc. (Geol)  
September, 1981  
Vancouver, B. C.



AQUARIUS RESOURCES LTD.



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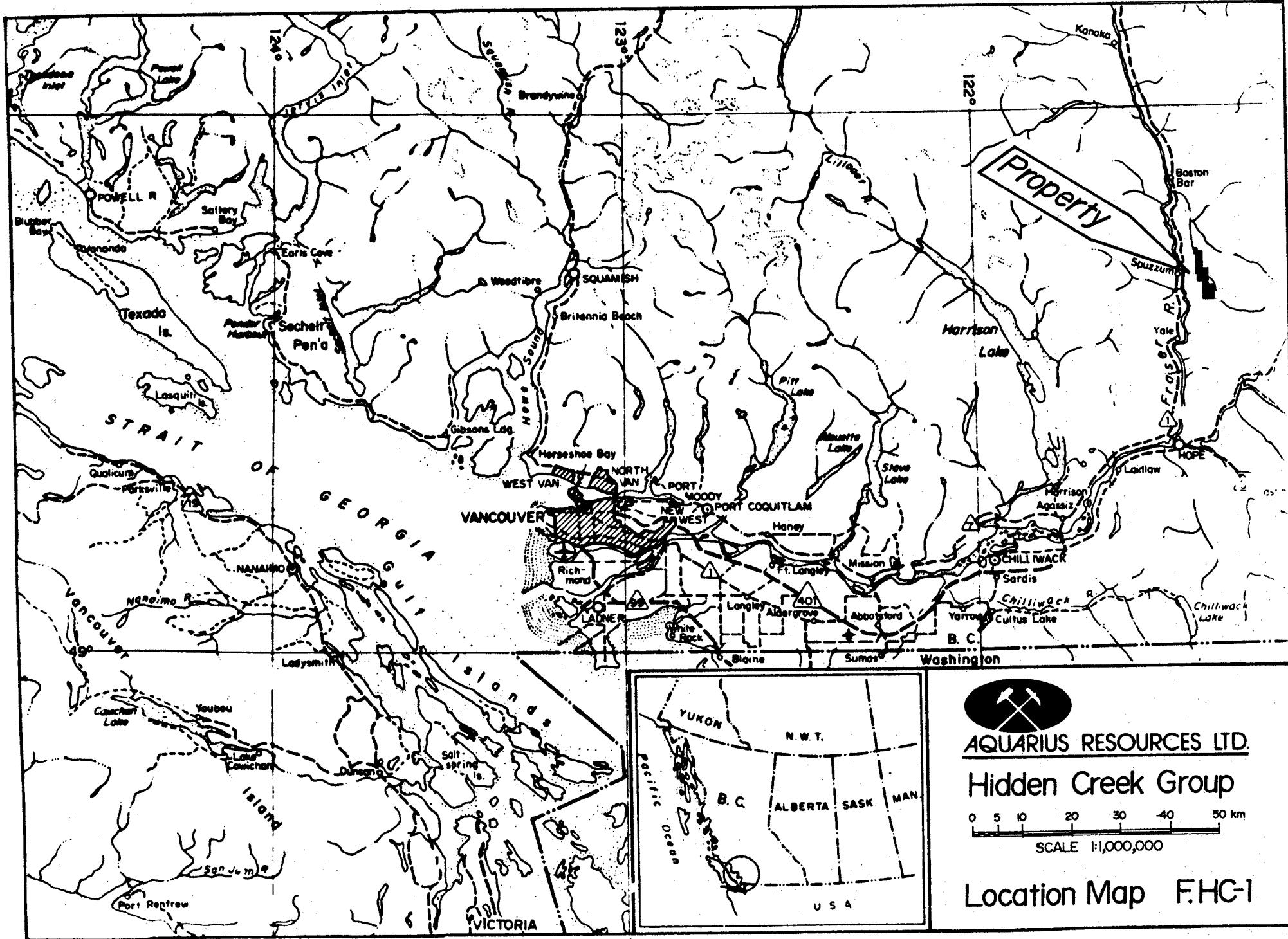


## Introduction

The Hidden Creek Group comprises the northern-most group of mineral claims held by Aquarius Resources Ltd., in the Coquihalla Gold Belt. During the month of August, 1981, a geologist and five (5) field assistants conducted a geochemical survey and mapped in detail portions of this claim group. This program was only one of a series of exploration programs carried out along the Coquihalla Gold Belt by Aquarius Resources Ltd., during the 1981 field season.

The following report was prepared for assessment work submission, with results listed in Appendix I.





### Location and Access

The Hidden Creek Group is centered 13 air km northeast of Yale, B. C., roughly encompassed by latitudes  $49^{\circ}37'20''$  -  $49^{\circ}44'$  and longitudes  $121^{\circ}20'10''$  -  $121^{\circ}23'30''$ .

Access is via the Hidden Creek logging road, which runs in a southeast direction from just north of the Alexandria Bridge on the Trans-Canada Highway #1. For safety purposes, a two-way radio with the Cattermole Logging Co. Ltd. radio frequency is recommended since the area is actively logged.

Gilt Creek logging road turns off Hidden Creek road at mile  $1\frac{1}{2}$  and provides the only means of access to the northern portions of the Group.

Siwash Creek road branches off Hidden Creek road at mile 7 and winds south well into the adjoining Spuz and Emmigrant Groups. A five (5) trailer base camp is located approximately  $2\frac{1}{2}$  miles (4 km) south from the above mentioned intersection. All roads are in relatively good driving condition but warrant 4 x 4 transportation.

The N.T.S. map sheet for this area is 92H/11W.



Property Information

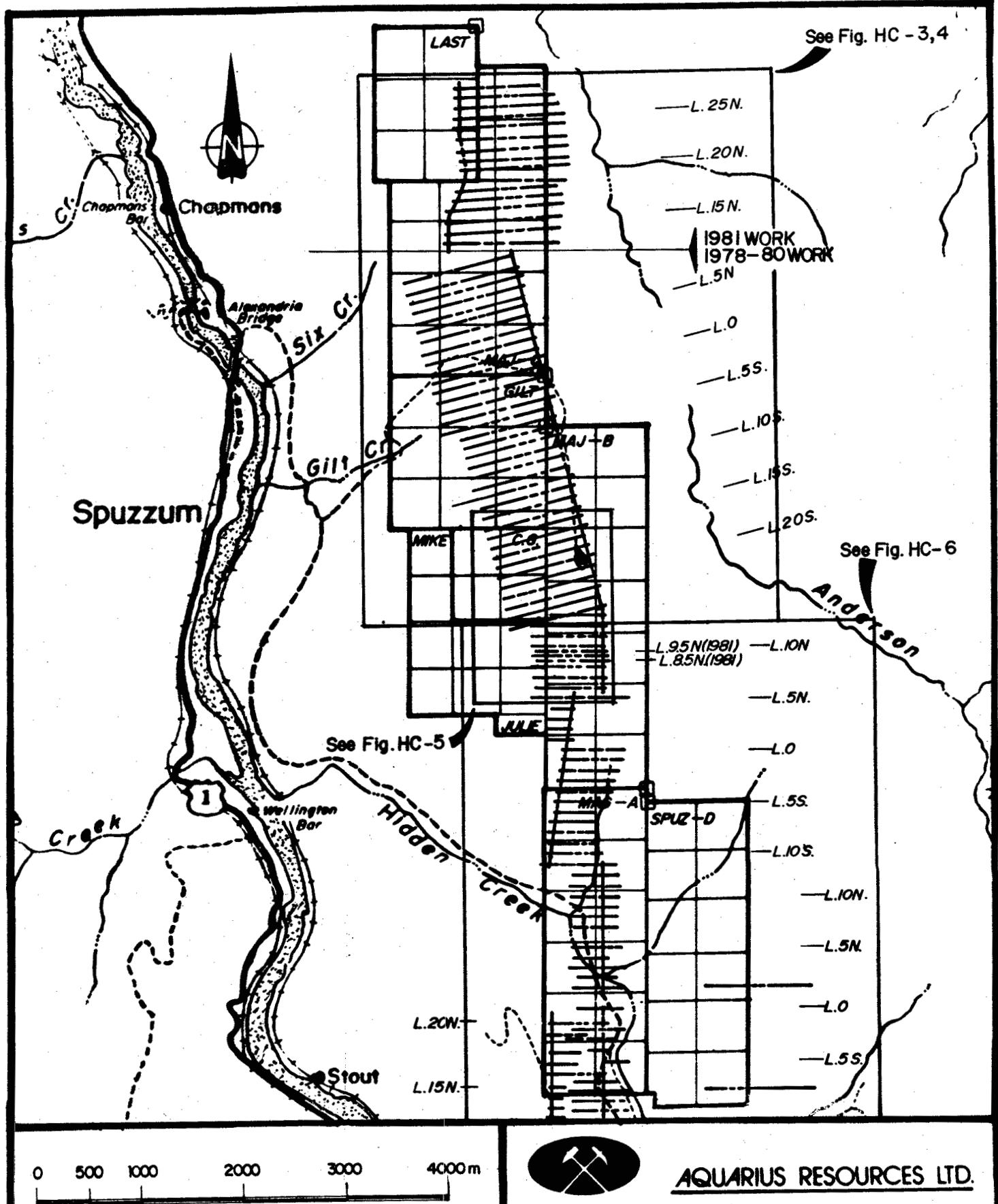
The Hidden Creek Group mineral claims are situated in the New Westminster Mining Division and are wholly owned by Aquarius Resources Ltd., 920-475 Howe Street, Vancouver, British Columbia. Details are outlined below:

HIDDEN CREEK GROUP - (re-grouped, 1981)

NAME	UNITS	RECORD NO.	ANNIVERSARY DATE	YEAR*
Last	6	223	August 22	1985
Maj C	18	316	August 11	1983
Gilt	9	510	June 25	1985
Maj B	16	319	August 11	1983
Mike 1-8 incl.	8	593-600	September 20	1983
CG 1-4 incl.	9	601-604	September 20	1983
Maj A	12	267	February 16	1986
Spuz D	12	314	August 11	1986
Julie	4	723	November 27	1983

Note: \* After assessment credits applied for





CLAIMS MAP

Figure HC-2

 AQUARIUS RESOURCES LTD.

Hidden Creek Group

N. Coquihalla Gold Belt      Spuzzum, B.C.  
New Westminster Mining Division 92H/11W.

## Summary & Conclusions

1. The Ladner Group consists mainly of slates and argillites, with minor volcanic wacke lenses. Numerous quartz-feldspathic dykes and sills occur within this group, occupying positions near fold axes. Mineralization is sparse, occurring mainly as disseminated sulfides within the intrusives. Metamorphism is low grade (Lower Greenschist facies) except for thin hornfelsic outliers near intrusives.

2. A thick (100 m) volcanic greenstone unit occurs within the Hozameen Group in the Gilt Creek area. Small serpentine lenses appear to be closely associated with this unit, which may be the result of intense shearing and leaching of the greenstone during the long history of the Hozameen thrust.

This area deserves more careful study since volcanics provide good host rock for mineralization and the area is so structurally complex.

3. The Serpentine Belt observed in the South Coquihalla extends through the study area, in the form of discontinuous



fault bounded (Hozameen Fault) lenses.

4. The structural trend is NNW-SSE. Tight isoclinal folding (axes plunging south) was noted in the Hidden Creek area within the Ladner Group. The Hozameen Fault, a reverse thrust in nature, is the major continuous structure throughout the area. It separates the uplifted Paleozoic Hozameen Group to the west from the lower-mid Jurassic Ladner Group to the east. This fault is offset north of Gilt Creek by what appears to be a series of right lateral cross faults. Overall displacement appears to be approximately .5 km east.

5. The geochemical soil survey of the Last and Maj C mineral claims was not successful in outlining any areas anomalous in gold.

Further work should include:

1. Detailed thin section analysis of volcanic green-stone and serpentine samples from the area
2. Continued detail mapping
3. Ground magnetic survey



## Section I

### Geochemistry

#### 1. Field Procedures - The Last - Maj C Grid

A north-south baseline was blazed and flagged at 50 m intervals paralleling a prominent volcanic greenstone ridge within the Hozameen Group. Seventeen (17) grid lines (L13N-29N) with 100 m spacings were run east from this baseline for an average distance of 1 km. Soil samples were obtained at 50 m intervals along these grid lines and analyzed for gold and mercury content.

#### Field Procedures - The Maj B Grid

This grid (established in 1980) saw the addition of two (2) seven hundred metre lines (L3.5N & L9.5N) during the '81 field season. The objective was to provide better control on the 75 ppb (parts per billion) gold anomaly outlined by L9N-2+00W and L10N-2+00W during the 1980 field season. Soil samples were obtained at 50 m intervals and analyzed for gold and mercury. Bulk rock samples were taken on or near anomalies similar in magnitude elsewhere on this grid.



Grid lines were blazed with brush axes and surveyed by compass and chain method. Flagging marked with grid coordinates, was fastened to tree branches every slope corrected 50 m.

Soil samples were obtained from the upper "B" soil horizon every 50 m with the aid of hand tools and placed in standard kraft paper bags marked with grid coordinates. These were then dried and shipped to Min-En Labs Ltd. of North Vancouver, B. C. to be analyzed for gold and mercury content by Aqua Regia and Atomic A sorption technique.

Results were sent to Aquarius Resources Ltd. (Hope Field Office) and plotted on a base map with the aid of field notes at a scale of 1:5000.

2. Discussion of Results - Last Maj C Grid

The gold content of upper "B" horizon soil samples from this grid ranged from below detection limit (/5 ppb Au) to a high of 35 ppb. Previous experience on the Coquihalla Gold Belt has illustrated that values from 15 to 45 ppb Au to be weakly anomalous, values from 45 to 75 ppb Au moderately anomalous, and 75 ppb Au and greater as anomalous. (Cochrane, 1980).

The highest values (35 ppb Au) by the above classification are considered weakly anomalous. The lack of high gold values does not necessarily imply that underlying bedrock displays the same characteristic. Thick soil/till cover (common to the area) may act as an effective barrier for gold migration in solution, even when underlying bedrock is anomalous with respect to gold.

Results are plotted on Fig. 2 along with previous years' work and contoured at the above mentioned intervals.

### Discussion of Results - Maj B Grid

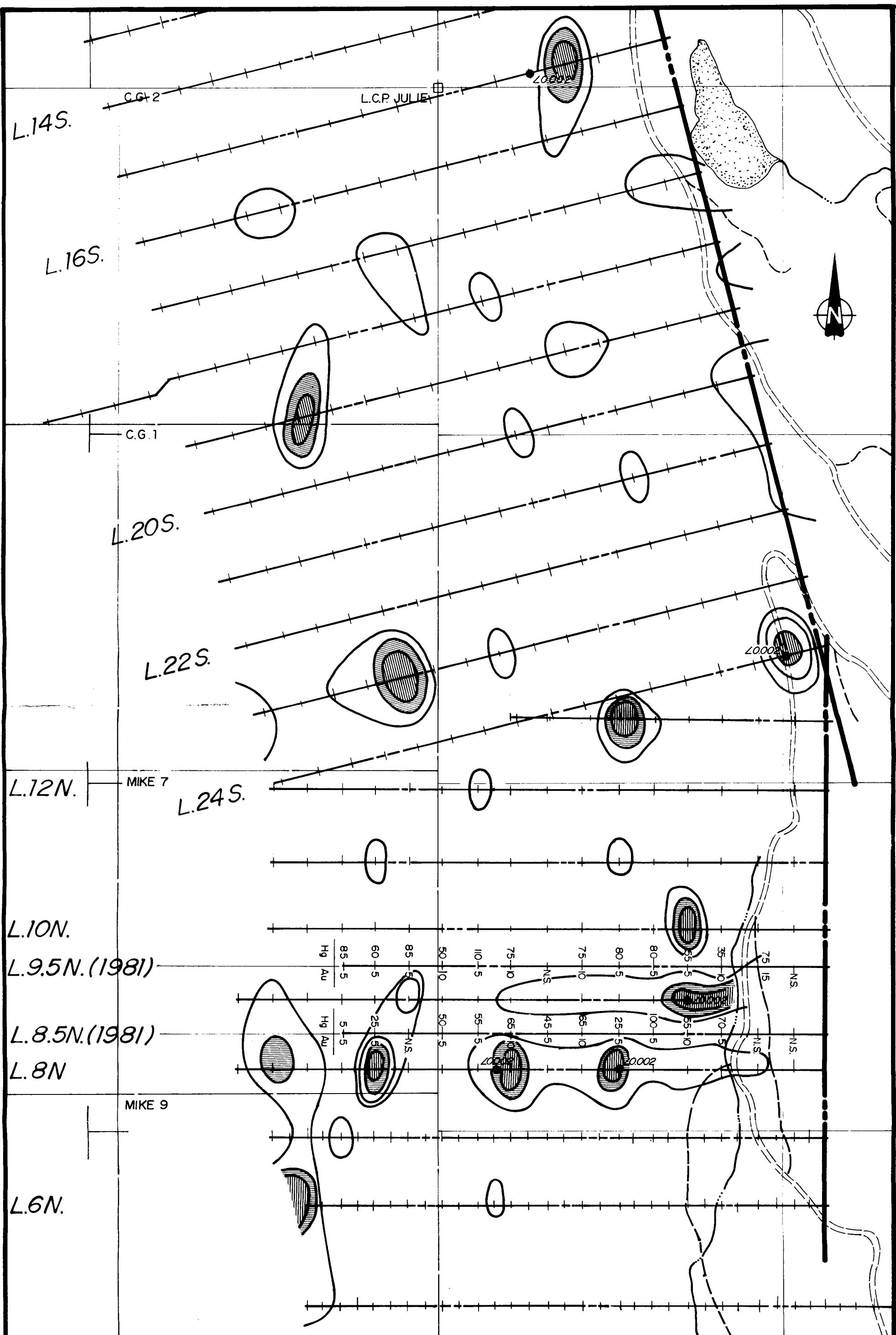
A total of twenty-four (24) soil samples and five (5) bulk rock samples were taken along this grid. Gold values from the upper "B" soil horizon ranged from a high of 15 ppb Au to below detection limit (/5 ppb Au). Upon contouring, previous highs became isolated and limited in areal extent (Fig. 3)

Bulk rock samples were obtained at the following geochemical highs (gold) and grid coordinates to be assayed for gold. (Results also on Fig. 3)

Coordinates	Gold in "B" Horizon	Gold in Rock
	(ppb)	(oz/ton)
L8N 3+00W	80	<u>/0.002</u>
L8N 4+75W	235	<u>/0.002</u>
L9N 2+00W	505	<u>/0.002</u>
L15S 1+50W	85	<u>/0.002</u>
L24S 0+50W	75	<u>/0.002</u>

High gold values in the soil appear to be unsubstantiated, most likely reflecting an accumulation of background gold leached over a long period of time from the underlying bedrock.





## SECTION II

### Geology

#### 1. Mapping Procedures

Geologic mapping was initiated at two scales.

When possible, outcrop was tied into the overlying grid and mapped at a scale of 1:5000. In areas devoid of grid lines, geology was plotted on transparent overlays, utilizing color aerial photographs at a scale of 1:15,000.

Notes were kept in standard field books and compiled at the end of the project. All geology was transferred to two (2) 1:5000 scale base maps of the claims area (Figs 4 & 5)

#### 2. Observations

Four main rock groups have been recognized in the study area. These include:

##### 1. HOZAMEEN GROUP

-Upper Paleozoic in age, characterized by cherts, argillites, andesitic volcanics, and serpentine.



2. LADNER GROUP

-Lower-Mid Jurassic in age, mostly slates and argillites with minor volcanic wackes

3. SERPENTINE BELT

- Cretaceous?

4. INTRUSIVES

- Cretaceous ? usually in the form of dyke and sill complexes in Ladner Group. Quartz feldspathic to gabbroic compositions.

The regional trend is NNW-SSE. The Hozameen Fault, a reverse thrust in nature, separates the uplifted Hozameen Group to the west from the younger Ladner Group to the east. The Hidden Creek Group mineral claims straddle this major structure, which is believed to have been active during the Cretaceous.

(a) The Hozameen Group

Cherts, argillites and interbedded andesitic volcanics typify this rock package. These rocks were not mapped in detail, and justify further investigation.



A thick (100 m) volcanic "greenstone" was noted in the Gilt claims area. This unit parallels the Hozameen Fault for an unknown distance north. Light green and fine grained in nature, it displays a little alteration along with minor quartz veining. Detailed mapping may delineate mineralized shear zones, similar to those encountered within the (basal Ladner Group) greenstone package in the South Coquihalla region.

Small serpentine bodies were noted in close proximity to the volcanic greenstones of this Group. These are lenticular in shape, with long axes paralleling the structural trend. It is believed these serpentine bodies were derived from the andesitic volcanics, and represent the localized result of intense shearing and leaching encountered during the spasmodic Hozameen Thrust.

The remainder and majority of the Hozameen Group is composed of ribbon chert, interbedded with black siliceous argillites. Light grey in color, these cherts occur in beds up to 1m in thickness. They are typically crypto-crystalline and highly fractured, implying brittle behaviour during deformation. Quartz veining is abundant with little or no mineralization.



The Hozameen Group is very resistant to erosion in nature, forming large ridges and steep cliffs, especially near the Hozameen Fault.



(b) The Ladner Group

The Ladner Group lies east of the Hozameen fault throughout the claims area, consisting mainly of slates, argillites and minor wackes.

The slates are invariably fine grained, fissile, and weather rust brown due to the presence of oxidized pyrites. Recessive in nature, outcrops are limited to road cuts and creek beds.

Volcanic wacke lenses were noted along Hidden Creek road. These discontinuous units are light green in color (high chlorite content) and extremely fresh looking. Elongate argillite clasts (up to 5 cm) are common in a medium-coarse grained groundmass of primarily volcanic rock fragments.

Unfortunately, this Group displays no marker horizon which can be used effectively in unravelling the complex structures observed.



(c) The Serpentine Belt

Serpentine occurs as isolated lenses along or near the Hozameen Fault within the Hozameen Group. It is typically a dark green-black massive, dense textured rock. Field observations have led to the suggestion that essentially two (2) types of serpentine are encountered here, each having a different time and mode of formation.

Type One:

Small lenses of serpentine are fault bounded to the east (Hozameen Fault) and bordered by non-igneous rocks to the west. This is similar to the massive Serpentine Belt in the Coquihalla South (Hope Group, Jessi Group locations). This belt is believed to represent an altered basic intrusion, peridotitic in nature, which occurred along a zone of weakness between the Hozameen and Ladner Groups (Cairnes). Alteration was facilitated by ascending thermal gases and solutions released by underlying magmas and contemporaneous intrusives. Serpentine of this parentage is believed to exist within the study area, in the form of a thin discontinuous belt.

Type Two

The second type of serpentine observed occurs as isolated pods well within the Hozameen Group, closely



associated with the andesitic volcanics. The intense shearing during the long history of the Hozameen thrust combined with ascending hydrothermal gases and solutions produced discontinuous serpentine pods, structurally oriented parallel to the Hozameen Fault, but derived from less basic andesite of Hozameen age.

Though examination has only been on the megascopic scale, a detailed thin section analysis of specimens from both environments should easily prove or disprove the above assumption.

(d) Intrusions

The Ladner Group plays host to numerous dykes and sills, which strike parallel to the regional trend. All intrusives are concordant with bedding (near vertical) making the distinction between "dyke" and "sill" often quite difficult. Bodies range in thickness from less than 1 m to more than 50 m, and up to 1 km in length. In the Hidden Creek area, these intrusives appear to occupy positions near fold axes.

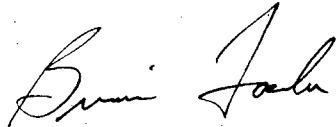
Quartz monzonites predominate, though dykes gabbroic

in composition were noted. Usually fine to medium grained, some porphyrys were observed in thicker (10 m) units. Phenocrysts of feldspar and hornblende up to 1 cm were seen in these larger bodies. Pyrite, pyrrhotite, and occasional arsenopyrite occur only as accessory minerals.

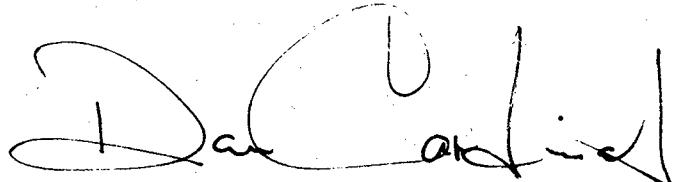
Slivers of argillite (now hornfels) occasionally exist within these intrusives. Slate contacts are thermally metamorphosed over an interval of 1 or 2 m.



Respectfully submitted



Brian P. Fowler, B.Sc. (Geol)



Dan Cardinal, B.Sc., P. Geol.

September, 1981.

Vancouver, B. C.



### 3. Structure and Metamorphism

The structural trend is NNW-SSE, with few deviations. The Hozameen Fault was traced along the western margin of the property, separating the uplifted Hozameen Group to the west from the younger Ladner Group to the east. This reverse thrust is offset approximately 1 km to the east by what appears to be a series of right lateral cross faults. Poor exposure within the area makes interpretation difficult. Outcrop near the Hozameen Fault is invariably sheared and highly fractured.

A series of tight isoclinal folds were noted within the Ladner Group in the Hidden Creek vicinity. Amplitudes and wave lengths range from 0.5 m to tens of metres. Fold axes concurrent with the regional trend plunge gently to the southeast. Compression from the west was accommodated by flexural slipping along bedding planes. The absence of well defined cleavage and sedimentary bedding structures renders "way up" determinations difficult.

A swarm of monzonitic dykes and/or sills occupy positions very near the above mentioned fold axes. Intrusives



are concordant with bedding, making the distinction between "dyke" and "sill" very subtle. These undoubtedly represent outer fingers of the Cenozoic Needle Peak Pluton, a large grano-dioritic mass located 4 km east.

A thin hornfels (1-2 m) encompasses most intrusives, with little or no observed mineralogical change. The regional metamorphic grade is of the lower greenschist facies.



**APPENDIX I**

**GEOCHEMICAL ANALYSIS DATA SHEETS**



# **MIN-EN Laboratories Ltd.**

705 WEST 15th STREET,  
NORTH VANCOUVER, B.C., CANADA V7M 1T2  
TELEPHONE (604) 980-5814

## **ANALYTICAL REPORT**

Project ..... Date of report ..... **Sept. 10/81.**

File No. **1-750** Date samples received ..... **Aug. 25/81.**

Samples submitted by: .....

Company: **Aquarius Resources** .....

Report on: **80 soils** ..... Geochem samples

..... Assay samples

Copies sent to:

1. **Aquarius Resources, Vancouver, B.C.** .....
2. .....
3. .....

Samples: Sieved to mesh **-80** ..... Ground to mesh .....

Prepared samples stored  discarded

rejects stored  discarded

Methods of analysis: **Hg-Flameless A.A., Au-Aqua Regia A.A.** .....

Remarks: .....

COMP

## Aquarius Resources

PROJECT No.: Spuzzum Mike &amp; Julie

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

1-750

DATE: Sept. 1

1981.

ATTENTION:

Sample Number	6	10 Xm	15 ppm	20 ppm	25 ppm	30 ppm	35 ppm	40 ppm	45 ppm	50 ppb	55 ppm	60 ppm	65 ppb	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L9.5N1+00W										75				15		
1+50										35				10		
2+00										55				5		
2+50										80				5		
3+00										80				5		
3+50										75				10		
4+50										75				10		
5+00										110				5		
5+50										50				10		
6+00										85				5		
6+50										60				5		
L9.5N7+00W										85				5		
BL8.5N0+00W										no sample						
0+50										no sample						
1+00										no sample						
1+50										70				5		
2+00										55				10		
2+50										100				5		
3+00										25				5		
3+50										65				10		
4+00										45				5		
4+50										65				10		
5+00										55				5		
5+50										50				5		
6+00										no sample						
6+50										25				5		
BL8.5N7+00W										5				5		
L2.6N750E										20				5		

CERTIFIED BY

*Bob Evans*

COMPANY: **Aquarius Resources**PROJECT No.: **Gilt Creek****GEOCHEMICAL ANALYSIS DATA SHEET**

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

No. 1-750

DATE: **Sept. 10****1981.**

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
<b>L28N0+00E</b>										10				10		
0+50										75				10		
1+00										45				5		
1+50										45				5		
2+50										25				5		
3+00										25				5		
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8+50										30				5		
9+00										15				5		
9+50										30				10		
<b>L28N10+50E</b>										35				5		
<b>L21N0+00E</b>										25				5		
0+50										45				5		
1+00										75				5		
1+50										75				20		
2+00										60				10		
2+50										20				5		
3+00										45				10		
4+00E										45				5		
4+50										15				5		
5+00										20				10		
5+50										45				5		
<b>L21N6+00E</b>										15				10		

CERTIFIED BY

*Bob Jones*

# ~~COMPANY~~ **Aquarius Resources**

# GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.: Gilt Creek Spuzzum

**MIN - EN Laboratories Ltd.**

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

10. - 1-750

DATE: Sept. 1

1981.

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mg ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
BL15N8+50E										55				10		
9+00										80				5		
9+50										75				5		
BL15N10+00E										90				5		
BL16N0+00E										75				10		
0+50										120				15		
1+00										80				5		
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6+50										55				5		
7+00										75				5		
7+50										90				10		
8+00										65				15		
8+50										50				5		
9+00										75				10		
9+50										55				5		
10+00										45				5		
BL16N10+50E										35				10		

CERTIFIED BY,

# MIN-EN Laboratories Ltd.

705 WEST 15th STREET,  
NORTH VANCOUVER, B.C., CANADA V7M 1T2  
TELEPHONE (604) 980-5814

REF ID: R071111D  
SEP 10 1981

## ANALYTICAL REPORT

Project **Gilt Creek** Date of report **Sept. 9/81.**

File No. **1-750** Date samples received **Aug. 25/81.**

Samples submitted by:

Company: **Aquarius Resources**

Report on: **255 soils** Geochem samples

..... Assay samples

Copies sent to:

1. **Aquarius Resources, Vancouver, B.C.**
2. .....
3. .....

Samples: Sieved to mesh **-80** Ground to mesh .....

Prepared samples stored  discarded

rejects stored  discarded

Methods of analysis: **Hg-Flameless A.A., Au-Aqua Regia A.A.**

Remarks: **More samples to follow.**

## GEOCHEMICAL ANALYSIS DATA SHEET

No. 1-750

PROJECT No.: Gilt Creek

MIN - EN Laboratories Ltd.

DATE: Sept. 9

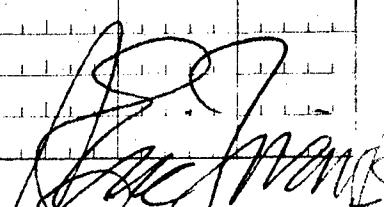
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

ATTENTION:

1981.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	ppm	ppb	ppm	ppm	ppb	ppm	ppm	ppm								
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L21N6+50E								•		35			5			
7+00								•		50			5			
7+50								•		20			5			
8+00								•		60			5			
8+50								•		25			5			
9+00								•		25			5			
9+50								•		5			5			
10+00								•		45			5			
10+50								•		35			5			
L21N11+00E								•		35			5			
L19N0+00E								•		70			5			
0+50								•		40			5			
1+00								•		30			5			
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2+50								•		40			10			
3+00								•		75			5			
4+00								•		60			5			
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6+50								•		50			5			
7+00								•		80			5			
7+50								•		10			5			
8+00								•		25			5			
L19N8+50E								•		5			5			
L20N0+00E								•		40			5			
0+50								•		100			5			
L20N1+00E								•		70			5			

CERTIFIED BY



COMPANY: **Aquarius Resources**PROJECT No.: **Gilt Creek****GEOCHEMICAL ANALYSIS DATA SHEET**

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

FILE NO. 1-750

DATE: **Sept. 9****1981.**

ATTENTION:

Sample. Number	6	10 <del>X</del> ppm	15	20	25	30	35	40	45	50	55	60	65	70	75	80
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
<b>L20N1+50E</b>								•		45				15		
2+00								•		40				5		
2+50								•		50				5		
3+00								•		35				10		
3+50								•		55				5		
4+00								•		65				5		
4+50								•		80				5		
5+00								•		65				10		
5+50								•		75				5		
6+50								•		35				5		
7+00								•		40				15		
8+50								•		25				5		
9+00								•		25				5		
9+50								•		30				10		
<b>L20N10+00E</b>								•		35				5		
<b>L29N0+00E</b>								•		60				10		
0+50								•		95				5		
1+00								•		115				10		
1+50								•		no sample						
2+00								•		30				5		
2+50								•		35				5		
4+50								•		100				5		
5+00								•		60				5		
5+50								•		20				10		
6+00								•		5				5		
6+50								•		25				10		
<b>L29N7+00E</b>								•		45				5		
<b>L26N0+00E</b>								•		85				5		
0+50								•		55				10		
<b>L26N1+00E</b>								•		30				5		

CERTIFIED BY

**GEOCHEMICAL ANALYSIS DATA SHEET**

No. 1-750

PROJECT No.: **Gilt Creek**

MIN - EN Laboratories Ltd.

DATE: **Sept. 9**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

**1981.**

ATTENTION:

Sample Number	6	10	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	65	70	75	80
81	86	X	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L26N1+50E										25				5			
3+50										45				5			
4+00										20				5			
5+00										95				5			
5+50										165				5			
6+00										35				5			
6+50										30				5			
7+00										70				5			
7+50										30				5			
8+00										60				5			
8+50										35				5			
9+00										45				5			
10+50E										20				5			
L26N11+00E										20				5			
L24N0+00E										40				5			
0+50										15				5			
1+00										50				10			
1+50										30				5			
2+00										30				5			
2+50										65				5			
3+00										35				5			
3+50										65				5			
4+00										40				5			
4+50										75				5			
5+00										35				5			
5+50										5				5			
6+00										5				5			
6+50										55				5			
7+00										15				5			
L23N7+50E										10				5			

CERTIFIED BY

COMPANY: **Aquarius Resources**PROJECT No.: **Gilt Creek****GEOCHEMICAL ANALYSIS DATA SHEET**

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

P.O. 1-750

DATE: **Sept. 9**

ATTENTION:

**1981.**

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	ppm	ppb	ppm	ppm	ppb											
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L23N8+00E										35				10		
8+50										5				5		
9+00										35				5		
9+50										75				25		
10+00								•		50				10		
10+50								•		90				5		
L23N11+00E								•		35				5		
L27N0+00E								•		20				5		
0+50								•		20				5		(40 mesh)
1+00								•		110				5		
1+50								•		105				10		
4+00								•		160				5		
6+00								•		80				5		
6+50								•		40				<5		
7+00								•		50				5		
7+50								•		20				5		
8+50								•		45				5		
9+00								•		25				5		
9+50								•		20				<5		
10+00								•		100				5		
10+50								•		90				5		
12+00								•		40				<5		
L27N12+50E								•		20				5		
L25N0+00E								•		55				5		
0+50								•		80				5		
1+00								•		10				<5		
1+50								•		50				5		
2+00E								•		115				15		
3+00								•		55				5		
L25N3+50E								•		20				10		

CERTIFIED BY

COMPANY Aquarius Resources

## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.: Gilt Creek

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

Lot. 1-750

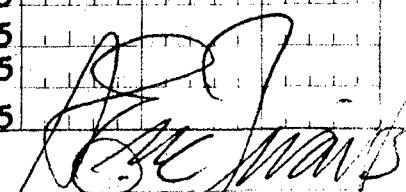
DATE: Sept. 9

1981.

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	% ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L25N4+00E								•		55				5		
4+50E								•		25				5		
5+00								•		105				5		
5+50								•		115				5		
6+00								•		75				5		
6+50								•		25				5		
7+00								•		85				10		
7+50								•		75				5		
8+00								•		70				10		
8+50								•		15				5		
9+00								•		65				5		
9+50								•		75				5		
10+00								•		65				5		
10+50								•		60				5		
L25N11+00E								•		75				5		
L22N0+50E								•		100				10		
1+00								•		45				5		
1+50								•		10				5		
2+50								•		40				5		
3+00								•		30				5		
3+50								•		25				5		
4+00								•		55				5		
4+50								•		45				5		
5+00								•		90				5		
6+00								•		80				5		
6+50								•		65				5		
7+00								•		75				5		
7+50								•		85				5		
8+50								•		60				5		
L22N9+00E								•		55				5		

CERTIFIED BY



COMPAGNIE AQUARIUS RESOURCES

## GEOCHEMICAL ANALYSIS DATA SHEET

No. 1-750

PROJECT No.: Gilt Creek

MIN-EN Laboratories Ltd.

DATE: Sept. 9

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

1981.

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	ppm	ppb	ppm	ppm	ppb	ppb	ppb	ppb								
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L22N9+50E										40			5			
L24N0+00E										130			5			
1+00										100			5			
1+50										60			30			
2+00										80			5			
3+00										25			5			
3+50										30			5			
4+50										35			5			
5+00										10			5			
5+50										95			5			
6+00										95			5			
6+50										75			5			
7+00										80			5			
7+50										85			5			
8+00										125			5			
8+50										95			5			
L24N9+00E										100			5			
L17N0+00E										120			5			
0+50										100			5			
1+00										50			10			
1+50										70			5			
3+00										120			5			
3+50										55			10			
4+00										85			5			
4+50										80			5			
5+00										60			5			
5+50										1140			5			
6+50										20			10			
7+00										75			5			
L17N7+50E										90			10			

CERTIFIED BY

COMPANY Aquarius Resources

## GEOCHEMICAL ANALYSIS DATA SHEET

1-750

PROJECT No.: Gilt Creek

MIN - EN Laboratories Ltd.

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

DATE: Sept. 9

1981.

## **ATTENTION:**

CERTIFIED BY

COMPANY: **Aquarius Resources**PROJECT No.: **Gilt Creek****GEOCHEMICAL ANALYSIS DATA SHEET**

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

No. 1-750

DATE: **Sept. 9****1981.**

ATTENTION:

Sample Number	6 81	10 86	15 90	Cu ppm	Pb ppm	Zn ppm	Ni ppm	25 105	30 110	Co ppm	35 115	40 120	45 125	50 130	Hg ppb	55 135	As ppm	60 140	Mn ppm	65 145	Au ppb	70 150	75 155	80 160
<b>BL13N0+00E</b>														•		45					5			
0+50														•		65					5			
1+00														•		50					30			
1+50														•		35					5			
2+00														•		60					5			
2+50														•		50					5			
3+00														•		60					5			
3+50														•		85					5			
4+00														•		45					5			
4+50														•		60					5			
5+00														•		45					5			
5+50														•		35					5			
6+00														•		30					5			
6+50														•		30					5			
7+00														•		20					5			
7+50														•		25					5			
8+00														•		80					5			
8+50														•		50					5			
9+00														•		30					5			
9+50														•		35					5			
<b>BL13N10+00E</b>														•		20					5			
<b>BL14N0+00E</b>														•		60					5		(40mesh)	
0+50														•		50					5			
1+00														•		60					5			
1+50														•		55					5			
2+00														•		60					5			
2+50														•		55					5			
3+00														•		65					5			
3+50														•		no sample					5			
<b>BL14N4+00E</b>														•		60					5			

CERTIFIED BY

*R. H. Morris*

COMPANY: **Aquarius Resources**  
PROJECT No.: **Gilt Creek Spuzzum**

**GEOCHEMICAL ANALYSIS DATA SHEET**

**MIN - EN Laboratories Ltd.**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

P.O. 1-750

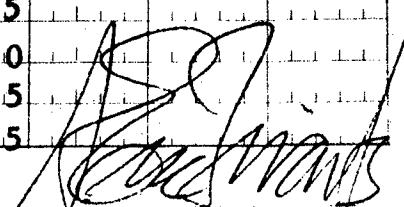
DATE: **Sept. 9**

**1981**

ATTENTION:

Sample. Number	6 81	10 86	15 90	Cu ppm	Pb ppm	Zn ppm	Ni ppm	25 105	30 110	35 115	40 120	45 125	50 130	55 135	60 140	65 145	70 150	75 155	80 160
<b>BL14N4+50E</b>																			
5+00													55				10		
5+50													50				10		
6+00													60				5		
6+50													20				5		
7+00													40				5		
7+50													25				5		
8+00													5				5		
8+50													20				5		
9+00													60				10		
9+50													75				5		
10+00													45				5		
<b>BL14N10+50E</b>													<b>no sample</b>						
<b>BL15N0+00E</b>													30				10		
0+50													20				5		
1+00													40				5		
1+50													115				5		
2+00													<b>no sample</b>						
2+50													25				10		
3+00													30				5		
3+50													30				5		
4+00													65				5		
4+50													55				5		
5+00													<b>no sample</b>						
5+50													35				5		
6+00													45				5		
6+50													60				5		
7+00													20				10		
7+50													30				5		
<b>BL15N8+00E</b>													20				5		

CERTIFIED BY



**APPENDIX II**

**CERTIFICATE OF ASSAY**

PAGE No. 1

## BONDAR-CLEGG &amp; COMPANY LTD.

REPORT NO. 1DATE: September 16, 1981920 - 475 Howe Street  
Vancouver, B.C.

## CERTIFICATE OF ASSAY

Samples submitted: August 28, 1981Results completed: September 16, 1981PROJECT: Mike (3pu) HIDDEN CREEK GP.

I hereby certify that the following are the results of assays made by us upon the herein described rock samples.

MARKED	GOLD		SILVER		Percent						
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton							
MIKE L 8W 3+00W	<0.002										
L 9W 4+75W	<0.002										
L9E 2+00W	<0.002										
L15S 1+50W	<0.002										
L24S 0+50W	<0.002										

cc Aquarius Resources - Hope

## NOTE:

Rejects retained three weeks  
 Pulps retained three months  
 unless otherwise arranged.

Registered Assayer, Province of British Columbia

### APPENDIX III

#### Assessment Work Details

##### Personnel

1 Geologist, Aug 1-24, 1981

24 days @ \$200/day ..... \$ 4,800.00

1 Geological Assistant

Aug 1-24, 1981

24 days @ \$150/day ..... 3,600.00

4 Field Assistants

Aug 1-15, 1981

15 days @ \$100/day ..... 6,000.00

3 Field Assistants

Aug 16-24, 1981

8 days @ \$100/day ..... 2,400.00

##### Field Expenses

###### Soil Sample Analysis

335 samples @ \$10.35/sample ..... 3,467.25

###### Bulk Rock Assay

5 samples @ \$9.75/sample ..... 48.75

###### Vehicle Expense

3, 4 x 4 @ \$450/mo ..... 1,350.00

Fuel & Maint. ..... 741.40

Field Supplies ..... 202.60

##### Camp Costs

Cook, Aug 1-24, 1981 ..... 800.00

Food and supplies ..... 2,600.00

Cont'd.....



APPENDIX III (cont'd)

Report Preparation

Report writing

12 days @ \$200/day ..... \$ 2,400.00

Typing and office

10 hrs @ \$14/hr ..... 140.00

Drafting

40 hrs @ \$18.50/hr ..... 740.00

Reproduction, collation, binding, etc,

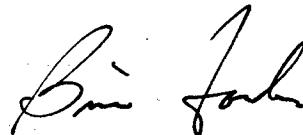
of report ..... 400.00

Total Assessment costs \$29,690.00

PAC Withdrawal 1,910.00

Total Assessment Applied \$31,600.00

Respectfully submitted



Brain Fowler, B.Sc. (Geol)



Dan Cardinal, B.Sc. (Geol), P. Geol.

September, 1981

Vancouver, B. C.



## APPENDIX IV

## Bibliography

- Cairnes, C.E.: The Serpentine Belt of the Coquihalla Region, Yale District, B. C., G.S.C. Summary Report No. 1929-A

Cairnes, C. E.: Coquihalla Area, B. C., G.S.C. Memoir 139  
1924

Cochrane, D.R.: Geochemical Assessment Report on portions of the Last Group and Hidden Creek Group  
1980

Littlejohn, A.L.: Reconnaissance Geological and Geochemical Survey of the Northern Section, Coquihalla Serpentine Belt, B. C. Assessment Report  
1977

APPENDIX V

Certificate

I, Daniel G. Cardinal of the Municipality of Hope,  
British Columbia, do hereby certify that:

1. I am a professional geologist residing in Hope, B. C., mailing address, P. O. Box 594, Hope, British Columbia, V0X 1L0
2. I am a graduate of the University of Alberta (1975) with a B.Sc.- degree in Economic Geology and a graduate of the Northern Alberta Institute of Technology with a Geological Technologist diploma (1970)
3. I am a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and a member of the Canadian Institute of Mining and Metallurgy.
4. Since 1968, I have been actively involved in the Canadian mining industry both as a prospector and a professional geologist, and have assisted and instructed prospector's courses through the Department of Extension, University of Alberta.
5. I am presently employed by Aquarius Resources Ltd., as a permanent staff geologist to systematically carry out geological mapping, prospecting, geochemical, geophysical and diamond drilling programs.



Daniel G. Cardinal, P. Geol.  
September, 1981.



APPENDIX V

Certificate:

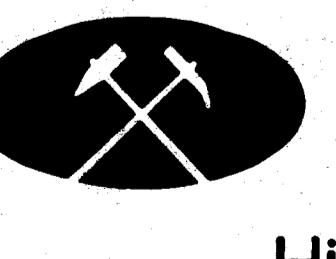

I, Brian P. Fowler of the Municipality of Hope, British Columbia, do hereby certify that:

1. I am a Junior Geologist residing in Hope, British Columbia, mailing address, P. O. Box 1465, Hope, British Columbia, VOX 1L0.
2. I am a graduate of the University of Alberta (1981) with a B.Sc degree in Geology, specializing in Petroleum
3. Upon graduation, I have been employed in the capacity of Junior Geologist by Aquarius Resources Ltd., to aid in geologic mapping and geochemical surveys within the Coquihalla Gold Belt.



Brian P. Fowler, B.Sc. (Geol)  
September, 1981,  
Vancouver, B. C.





# AQUARIUS RESOURCES LTD.

# Hidden Creek Group

**MINERAL RESOURCES OF THE U.S.**

SOURCES LTD.

**Hidden Creek Group** NO. 9767  
*North Coquihalla Gold Belt* Spuzzum, B. C.  
New Westminster Mining Division NTS 03H/11W

*New Westminster Mining Division N.T.S. 92H/11W.*

1:5,000 0 50 100 200 300 400 500 600 700 METRES

To accompany a report by D.G.CARDINAL, P.GeoL, & B.P.FOWLER, B.Sc.(Geology) on the Hidden Creek Group dated September, 1981

DATE	REVISION	BY		
Sept. 1978	Base Map	P.K.C.		
Sept 1981	New Grid & Geochem, Geology	P.K.C.		

# GEOCHEMICAL RESULTS(1981) —

## Last - Maj C area

