PROSPECTING REPORTon the
BuDGER MINERAL CLAIM
Record No: 1127(8)
SIMILKAMEEN MINING DIVISION
N.T.S. M92H 1OW
Lat. $49^{\circ} 322^{\prime \prime}$ Long. $120^{\circ} 55^{\prime} \mathrm{W}$
West Slope of Grasshopper Mountain
9 Km due west of Tulameen B.C.
for
Florence Hedin (Owner)
Merritt B.C.
by
Don Faulkner
Box 441
Merritt B.C.
Jung 31, 1981

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## INTRODUCTION

The following report on the Badger Claim has been prepared for the Omer, Mrs Florence Hedin of Merritt B.C., on the request of Mr. Fred Hedin. It describes a copper-precious metals prospect, occuring on the wes", slope of 'rasshopper Mountain approximately 9 Kilometers due west of the village of Tulameen, E.C.

The property was visited on July 27, 1981 accompanied by Mr. Hedin.
mogerty
The property is held in good standing by Mirs Hedin under Record number 1127(8) anniversary date August 13, 1981, and consists of the Badger Mineral Claim of 20 units staked 4 units easterly and 5 units southerly from the legal corner post which is located 200 metres north west of west Murphy Lake.

The owner is aware that that a contravention exists in the extreme northeast corner of the claim over an existing crown granted claim and over the western end of Grasshopper Nos. 1 \& 2 in the southeastern end and comer of the property. The legal corner post was examined by the undersigned.

## LOCITION AND ACCESS

The Badger claim is located in south central British Columbia on the west slope of Grasshopper Mountain and south of the Murphy Lakes 9 Km due west of the village of Tulameen in the Similkameen Mining Division. Access ran be gained from Tulameen by travelling 23 kilometers on the Liwless Creek and Britton Creek Forest access roads to a point 4 km northwest of Murphy Lakes where a good logging road, locally known as the Crasshopper road, turns southerly on the east side of Britton Creek and leads directly onto the property. Acces can also be gained from Merritt by travelling 64 km from Merritt to the Britton Creek road turnoff at the Cocuihalla lakes and then 22 km to the above mention turnoff.

Elevation of the property ranges between 1070 to 1430 metres. The climate is moderate but is subject heavy snowfall during the winter months. The area is heavily forested by a dense growth of fir, balsam, spruce and lodsepole pine.

## BACKGFOUND

The area is described by H.M.A. Rice in G.S.C. Memoir 243 (1946) between 1938 and 1940 some 1400 tons of material containing 924 ounces of gold was mined from quartz eins occuring in the Nicola Greenstones itr lm east of the Badger claim on the northeast slope of Grasshopper Hountain. Copper mineralization and some good timber was noted in the area by Mr Hedin who is an employee of a contracting firm employed by Ealco Forest Froducts Ltd of Merritt, owners of timber rights in the area. Following construction of roads and clear logging of parts of the area, Mr Hedin arranged for use of his employer's equipment to carry out

## 2.

some trenching and stripping in the area following clean up and slash burning operations in September and October of 1980.

AEGICNAL GEOLOGY
The geology of the area is pictorially described on G.S.C. Map 888A and G.S.C. Meroir 243 by H.F.A. Rice. In the area of interest three of the rock types described occur in close proximity.

Fart of the intrusive ultrabasic Olivene Mountain body which covers an area measuring 18 by 5 kilometers deeply incised by the Tulameen liver 10 kilometers southwest of the village of Tulameen occupies the southeastern third of the Badger claim. This body varies in conposition from peridotite to gabbro with the most abundent type described as a dark green, heavy, coarse grained pyroxenite. This phase is present in the area of interest and contains the mineralization which attracted Mr ledins attention but the other phases were noted.

The typical Coast Range "Grey granodiorite" of pre upper Lower Cretaceous age, called the Eagle Granodiorite, occupies the northwesterly two thirds of the Badger claim and in the area of interest the northeast boundary swings fron a general northwest southeast trend to a northeastsouthwest trend around the northern end of the ultrabasic intrusion.

The third rock type present is the Triassic Nicola greenstone series, a succession of lavas, tuffacicus and argillaceous rocks and lenses of 1 imestone. In the area of interest a narrow 1 to 2 kilometer wice band of these rocks is depicted as being intruded from the southeast by the ultrabasic body and from the northwest by the granodiorite body. Two 10 to 20 metre wide lenses of white crystaline limestone occur in the northeast comer of the Badger claim trending northerly. The contact between similar limestone and the diorite crosses the Britton Creek road about 1 tom east of the Murphy Lakes and is standing nearly vertically.

ZONOMC GEOLOGY
The creek draining southwesterly toward Britton Creek appears to mark the contact between the ultrabasic body and the greenstone. Overiurden over the ultrabasic body is generally very 1 ight and the firega\&rd around the eastern boundary of the logged area affords a nearly continuous exposure for almost. 2000 metres. Overburden appears to deepen toward the west and a deep excavation along the road leading to the most southerly $\log$ landing failed to disclose bedrock.

Copper mineralization appears within a 10 metre wide band of the coarse pyroxenite phase of the ultrahasic body as disseminated blebs of chalcopyrit.e and pyrite. Ficked samples of the best material assayed in the range of 1 to $1.5 \%$ copper and trace to .07 ounces of gold. This pyroxenite phase is about $2 \mathrm{C}_{\mathrm{m}}$ metres in width and strikes east west. On the southside it appears to grade into bluish grey peridotitic phase and on thenorth into a greyish porphoritic rock.

Within the north logged area the only bedrock exposures noted were
the two northerly trending limestone beds which appear to be separated by a 100 metre wide band of brecciated talcose schist. Alignment of the beds suggest a tightly folded syncline or dragfold. Overburden obscures the greenstone and diorite contacts crossing the central and northern part of the claim and stripping and trenching were carried out only withir the logged off areas.

## RECERT WORK

In the southerly logged area work was devoted to scraping out an almost continuous exposure of the underlying bedrock in the eastern or uphill side of the fireguard built around the logged area. Ten short ( 30 to 50 metre) shallow trenches were cut to expose bedrock within the area of light overburden. One deep 4 metre by 100 metre trench was cut accross the exposure of the mineralised section, and one deep 5 metre by 200 metre cut was dug along the road leading to the most southerly log landing.

In the northerly logged area the uphill or north firegaurd was deepened in an attempt to reach bedrock but was successful only in the area close to the two 1 imestone outcrops. Four short 30 by 2 metre cuts were made accross the 1 imestone. Existing iogging roads were cleaned up and gralled where necessary and the exist ing $\log$ landing areas were cleared and itveled to provide future drill sites.

The work required 32 hours of nachine time using an Internationai and tractor equipped with rippers and a brush blade. Operator was Fred fedin on a machine belonging to H.E. Sanders Ltd. of Merritt B.C.

## IECOMRMAMTIONS

The presence of limestone and argillaceous rocks trapped between l.wo intrusive plutonic masses of differing composition suggest the possible existence of contact metamorphic orebodies at depth below the extensive overburcien covering the actual contacts. For this reason I would recomriend establishing a baseline along the southwesterly flowing creek with stations at 50 metre intervals and turning off side lines with stations at 20 metre intervals for a thorough geochemical survey over the probable position of the greenstone beds. The lines could be extended southerly to assist in mapping and measuring the mineralization found in the ultrabasic body. A magnetometer survey on the same grid could be of assistance in defing the position of the contacts.


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## APPENDIX NUMBER 1

SUMMARY OF EXPENSE INCURRED IN EXPLORATION OF THE badger mineral claim


Certified, to the best of my knowledge and belief, the above schedule represents a true and accurate summary of the costs incurred in exploration of the Badger mineral claim between August 13, 1980 to July 30, 1981.


July 31, 1981

- Mrepence Ftreizi


## Appendix Number 2

## WRITERS CERTIFICATE

I, Donald Faulkner of Merritt, B.C., hereby certify that:

1. I am an experienced prospector, resiling at 1925 Second Avenue, Merritt, B.C.
?. I have been employed in the mining exploration business since 1946 as a prospector, fieldman for various syndicates and small mining companies, and presently am president and general manager of Pine Valley Explorers Ltd.
2. I am the author of this report which is based on published literature, previous geological reports and a field examination on July 29, 1981.
L. I have no beneficial interest in the Badger mineral claim nor do I expect to receive any interest in the future.



FIGUIE 1
LOCATION \& ACCESS Badger Mineral Claim
N.T.S. 92H 10 W

Similkameen Mining Division Mrs F. Hedin Merritt B.C. Scale $1 \mathrm{~cm} .=500 \mathrm{~m}$

REGIONAL GEOLOGY
Badger Mineral Claim
Index to Rock Types


Olivene Mountain
Ultrabasic Intrusive Peridotite to Gabbro


Olivene Mountain Ultrabasic Intrusive Pyroxenite Phase

Eagle Granodiorite Diorite intrusive


Nicola Greenstone Andesites, Argillites


Nicola Greenstone Limestone dykes.



