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S.A.G.  
REPORT ON MINING PROPERTIES,  
EAST KOOTENAY DISTRICT, B.C.

10th July 1957 Dr. A.C. Skerl

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1758 WESTERN PARKWAY  
VANCOUVER 8, B.C.

REPORT ON MINING PROPERTIES;  
EAST KOOTENAY DISTRICT, B. C.

INTRODUCTION

At the request of Mr. C. F. Gorse I recently inspected twelve prospects in the St. Mary Lake, Cranbrook and Fort Steele areas from June 24th to July 1st inclusive under the able guidance of Mr. E. Lawrence.

The principal references available are the Geological Survey of Canada publications:

Memoir 76, Geology of the Cranbrook Area - S. J. Schofield, 1915

Summary Report A 1932 - C. E. Cairnes

Memoir 207, Cranbrook Map Area - H. M. A. Rice, 1937

Memoir 228, Nelson Map Area, East Half - H. M. A. Rice, 1941

Paper 52-15, St. Mary Lake, - G. B. Leech, 1952

and various accounts in the annual reports of the Minister of Mines for B. C. especially that by J. D. Galloway in 1915.

The area has been prospected over the past one hundred years but as is so often the case in B. C. most of the production from the district has come from one large mine - the huge Sullivan ore deposit.

SHEET No. \_\_\_\_\_

FILE No. \_\_\_\_\_

# J. R. WILLIAMS & SON LTD.

PHONE MARINE 5821

PROVINCIAL ASSAYERS

580 NELSON STREET

File # 153136/148

VANCOUVER 2, B. C., July 4, 1957

RESULTS of Assays made on samples of ore submitted by: Dr. A. C. Skerl.

MARK	Gold Ozs.p/t	Silver Ozs.p/t	Copper %	Nickel %
8-1	0.005	Trace	0.10	
8-2	Trace	Trace	0.45	
8-3	Trace	0.20	1.70	
8-4	Trace	0.10	0.20	
8-5	Trace	Trace	0.80	
8-6	Trace	Trace	0.12	Trace
8-7	Trace	Trace	0.32	Trace
8-8			0.07	
8-9			0.12	
8-10			0.47	
8-11			0.22	
8-12	Trace	Trace	4.97	
8-13	Trace	Trace	0.40	

Assays made by

*J. R. Williams*

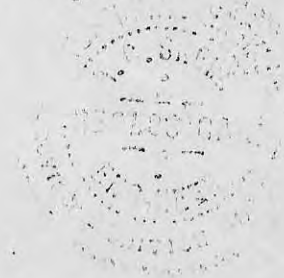
channel or sections.

In the present case machinery and equipment are already being set up and a test cut will be run across the gravels down to bedrock. If this proves profitable then the cut can simply be enlarged. Otherwise systematic drilling will be necessary to find a sufficiently richer section.

The most difficult problem will be the cleaning up of the irregular argillite bedrock which has a strike parallel to the river and a dip of  $45^{\circ}$  to the northwest. It will probably be necessary to remove a foot or two of the bedrock to be sure of recovering the gold that has worked down the cleavage partings and other openings.

Another problem is the recovery of the fine gold which appears to have an affinity for the smaller particles of the argillite and so pass on over the riffles with it. A suitable chemical depressant is probably available of the type that is sometimes used in the mills of gold mines with free gold in the ore.

*A. C. Skerl.*





## S U M M A R Y

1. In the Meacham Creek valley west of St. Mary Lake I examined eight copper properties in which five quartz veins might average 1% Cu over stoping widths and three disseminated deposits up to 0.5% Cu. None of them is considered workable.

2. The small workings in the Lone Pine Hill area have developed only very small deposits.

3. A new prospect that is one mile <sup>North</sup> ~~south~~ of Eager station has disseminated copper mineralization in sections of carbonated and sheared lava in a possible width of 180 feet. Some preliminary exploration is suggested for this readily accessible area.

4. On Wildhorse River an area of auriferous gravel 5000 feet long, up to 1000 feet wide and 30 feet deep is to be tested by sluicing the material from a large cut across the deposit.

A successful outcome to this test could resuscitate this old placer mining area.

## R E C O M M E N D A T I O N S

1. Investigate the four other occurrences in the St. Mary Lake area as listed in this report.

2. Conduct exploration work on the prospect one mile <sup>North</sup> south of Eager station.

3. Carry out the proposed testing of the gravel deposit on Wildhorse River.

## COPPER PROSPECT ONE MILE NORTH OF EAGER STATION

## I N T R O D U C T I O N

This property was inspected on July 1st under the guidance of one of the owners and in the company of Mr. E. Lawrence. It is alongside a rough gravel road that is to be made into a highway shortly.

## G E N E R A L G E O L O G Y

According to the map of Rice(1935) the showings are near the contact of the Kitchener and Siyeth Formations - both consisting of argillites. In the immediate neighbourhood however the rocks consist of greenstone and banded cherty sediments that may be tuffs.

The only attitude observed was in the latter rocks which strike N 30°E and dip 45°E.

## M I N E R A L I Z A T I O N

There are two quartz-calcite bands or veins 180 feet apart, striking N 60°E and dipping 60°N. Between them the rock is partly sheared and carbonated greenstone and partly a dioritic rock. Both are sometimes mineralized with chalcopyrite.

In the main pit a chip sample taken along the east side for 20 feet assayed 0.40% Cu and a trace of gold and silver.

As indicated in the sketch plan outcrops are not frequent and it is not possible at present to decide on the overall shape of the mineralization.

## D I S C U S S I O N

The apparent extent of the sheared and carbonated greenstone together with the chalcopyrite mineralization make this prospect more attractive than any other that I visited in the area. Neither

sufficient size nor grade are indicated so far but there is room for an economic deposit within the area.

The property could best be explored by means of a self potential geophysical survey supported by geological mapping and followed up by bulldozing and diamond drilling if the indications warranted.

In the neighbouring ground a few other showings were seen that consisted of thoroughly leached quartz that could have contained sulphides.

Large outcrops of  
Cherty sediments

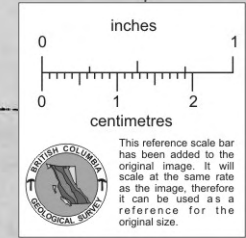
4' carbonated lava  
with chalcopyrite

Main Pit

W.	Au	Ag	Cu
20'	Tr	Tr	0.40%

Sheared and  
carbonated  
lava with Cu

Quartz -  
calcite  
vein



COPPER PROSPECT  
One mile North of  
Eiger Stat. C.P.R.  
Sketch Plan  
Scale 1" = 40'  
30 June 57 A & S. 1