GROGAN CREEK

QUESNEL LAKE

CEDAR CREEK

BAN 1

BAN 2

LEGEND
BAN GROUP

- Trenches
- Sample points
- Access roads
- Claim boundary and posts
- Placer works

SCALE 1:5000

250 0 250 meters

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8054

Raymond A. Cook B.Sc. Geology

June 11, 1980.

A Prospecting Report

on the

BAN Property (BAN 1 and BAN 2 Claims)

located in the

Likely Area, Cariboo Mining Division

MAP M93A/12E

Latitude 52° 37.5' and Longitude 121° 31.5'

for

Raymond A. Cook

(owner and operator)

by

Raymond A. Cook, B.Sc.

May 30, 1980

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I. Introduction

The BAN property was staked on the belief that major placer gold deposits found in the area were controlled directly by insitu lode gold bearing structures.

Property

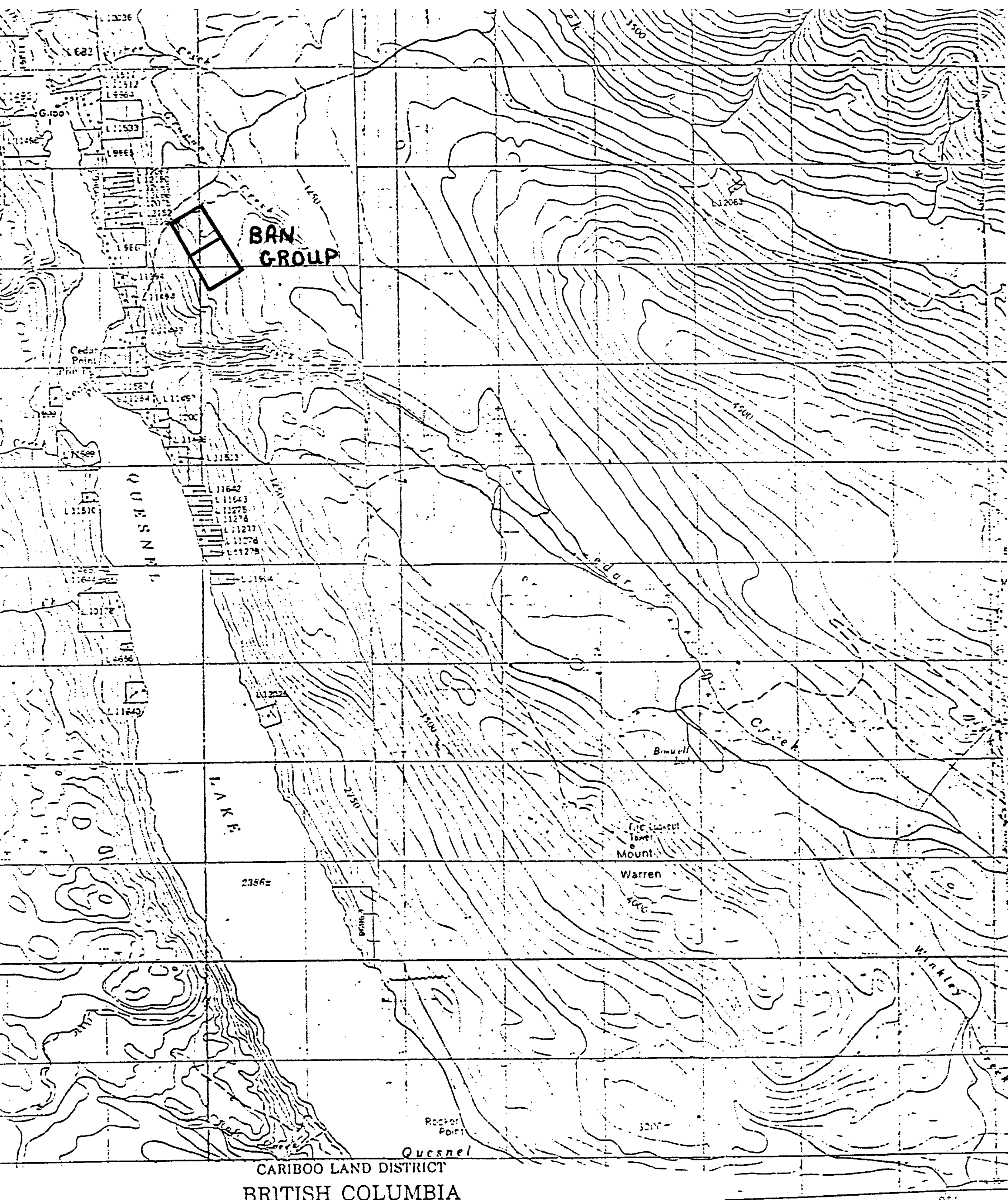
The BAN property was located by Raymond A. Cook of Vancouver, British Columbia in 1979. Two claims are included; the BAN 1, record number 1000 and the BAN 2, record number 1001. Both claims are located in the Cariboo Mining Division and were recorded and grouped at the recording office in Vancouver, British Columbia.

Location and Access

The property is situated approximately 5 to 6 kilometres southeast of the town of Likely, British Columbia. Likely is eighty-three kilometres from One Hundred and Fifty Mile House travelled along a good gravel road. The property is accessible by a fair dirt road from Likely which branches to the east toward Grogan Creek. The road crosses to the immediate north of the BAN claim group 200 metres west of Grogan Creek.

Topography and Vegetation

The elevation of the property is approximately 920 metres above sea level and shows little variation. The claims are located on a plateau southwest of Grogan Creek, north of Cedar Creek and east of Quesnel Lake. The bedrock of the property is totally obscured by a thick veneer of glacial till. The vegetation cover is quite dense, reflecting several



CARIBOO LAND DISTRICT

BRITISH COLUMBIA

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Milles

Metres 1000 0 1000 2000 3000 4000 Mètres

Yards 1000 0 1000 2000 3000 4000 Verges

CONTOUR INTERVAL 50 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

periods of floral regrowth. Cedar, birch, hemlock, fir, pine and alder trees predominate with some cedar trees reaching over 30 metres in height.

Rainfall is minimal in the summer creating a semi-arid climate while temperate conditions prevail the rest of the year.

General Regional Geology

The history of placer gold prospecting has been continuous since the original Cariboo gold strikes of the middle 1800's. The reoccurrence of major placer discoveries in the Wells-Barkerville area, at Moorehead Creek, Bullion Pit, Keithly Creek and Cedar Creek, continued to maintain prospecting interest up to the present time.

The dominant rock units of the region, based on the Quesnel Lake map sheet 93A, Edition 2, are thick sequences of Paleozoic clastics and minor carbonates to the east and to the west are Mesozoic sequences of igneous intrusives and extrusives. The thick sedimentary sequences to the east undergo increased metamorphism from west to east due to the influence of the Shuswap metamorphic complex to the east. Sedimentary rocks of the central mapped area show little metamorphism as do most of the volcanic and plutonic rocks to the west. A major structural contact divides the Paleozoic and Mesozoic units and reflects the northwest to southeast general structural trend of the mapped area.

Major fault systems parallel the regional northwest to southeast structural trend with normal faults and tensional veins occurring obliquely to the dominant lineaments. It is the northeast to southwest trending quartz-carbonate veins that host many of the known lode gold deposits.

Throughout the Cariboo, thick sequences of glacial till were deposited. Glacial scour and erosion dominated the topographically positive features with corresponding deposition of thick accumulations of glacial till in the valleys and on the plateaus.

II. Prospecting and Work Performed

Minor surface trenching in pits 2 metres in length, 1.2 metres wide and 1 metre deep, panning of surface and trenched material, rock sampling, hand specimen examination and assays were obtained from the property. Most of the work was confined to the BAN 2 claims.

Results

Glacial till when exposed, is composed of reworked glacial debris showing outwash bedding and lamination. Till components in shallow surface pits are moderately well stratified fine to coarse gravels. Coarse cobbles and pebbles of several centimetres in size define outwash channel beds with finer sand and gravel interbeds suggesting stream reworking of glacial debris with varying pulses of stream intensity. The character of the gravels are such that almost no material is boulder size except that which was placer mined from a large placer operation located on the BAN property. All glacial sediments are moderately well to very well rounded and often when stratified show fair sorting.

Examination of placer tailings show an abundance of glacial till but also a significant amount of gossanous volcanic rock and vein quartz. The volcanic rock and vein quartz are cobble to boulder size and although

some of these rocks are subangular in appearance, most are quite angular suggesting little to no fluvial reworking. The bedrock underlying the BAN property has been extrapolated by the Geological Survey of Canada as porphyritic andesite, the same as the rocks exposed in Cedar Creek canyon 1 thousand metres to the south. Verification of this proposed bedrock composition is reinforced in that the angular rocks from the placer tailings are dominantly porphyrtic andesite. Samples cut on a rock saw show veins of quartz and carbonate crosscutting the andesite. Minor pyrite and pyrrhotite was observed in these veins although significant exsolution and oxidation of sulphides leaves abundant hematite and limonite coating the fracture surfaces and vacuities. Two samples BH 1 and BH 2 with observed amounts of pyrite and pyrrhotite were assayed for gold with results below 0.003 oz/ton.

Major interest exists in the abundant vein quartz float found both as distinct samples and as significant fracture fillings in the placer mined volcanic bedrock. The abundance of vein quartz, up to 30 percent of visible tailings, strongly suggests a proximal vein source for gold obtained locally by bedrock placer operations. The vein quartz frequently exhibits limonite-hematite filled cavities that are cubic and octahedral in outline suggesting the exsolution of sulphides.

A large placer operation located directly on the property has been active since the middle nineteen fifties and according to British Columbia Department of Mines reports has had excellent gold production.

Lode gold in vein quartz has been observed locally in volcanic

bedrock to the southeast in the old upper bench placer works two kilometres south of Cedar Creek, in Cedar Creek Canyon and in clastic rocks on Spanish Mountain three to four kilometres east of the BAN property.

III. Conclusion

Hematite and limonite containing angular vein quartz and porphyritic andesite are found in the placer tailings located on the BAN property. Glacial till overlying bedrock locally shows significant reworking from glacial outwash and the sediments are well rounded and stratified. Glacial till rarely contains any boulder size material with pebbles and cobbles being dominant. Boulder size vein quartz and volcanic rock found in the Grogan Creek upper bench placer tailings show a direct bedrock source. Based on rock composition, presence of vein sulphides and locally known lode gold containing quartz veins, it is proposed that the gold obtained as placer gold on the BAN property has a proximal if not insitu lode gold source.

Recommendations

Initial prospecting of the BAN property has revealed a tentative insitu vein gold-placer association. Significantly more prospecting, trenching, bedrock sampling, assaying and a geological examination of the property would aid in the location of mineable vein gold occurrences on the BAN property.

APPENDIX I

COST STATEMENT - BAN CLAIMS

Prospecting expenditures during Oct. 20 to Oct. 21, 1979.

Name	Work	Dates Worked	No. of Days	Salary/Day	Value
R. Cook	Prospecting; Trenching; Panning	Oct. 20 to 21	1	100	100
R. Stonard	Prospecting; Trenching	Oct. 20 to 21	1	100	100
				subtotal:	200

GENERAL EXPENSES

Truck Rental (1) and gasoline		120
Meals and lodging		60
Report compilation and Assays		80
	subtotal:	260

TOTAL: 460

Raymond A. Cook

APPENDIX II

Qualifications

I, Raymond A. Cook have been practising my trade as a geologist since 1973.

I am an honours graduate in Geology from the University of Alberta. Edmonton 1973.

In applying my profession I have worked with Eldorado Nuclear, Cominco, Terra Mines Ltd., and Union Carbide in mineral exploration and underground development.

I have worked on research projects in geology for the University of Alberta, Edmonton, Alberta and the University of British Columbia, Vancouver, British Columbia.

I have worked privately on interests of my own in British Columbia and the Northwest Territories since 1975.

I am currently completing a Masters Thesis in geology at the University of British Columbia.

I hold interest in the property described in this report and I supervised and directed all exploration activity.

Raymond A. Cook

Raymond A. Cook, B.Sc. Geology