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GEOCHEMICAL SURVEY
BAM CLAIMS

LAIRD MINING DIVISION

NTS 104G/2 W

Latitude 57° 12 10.8′

Longitude 434° 22 130° 52.6′

for

Owner: C. Graf

FILMED

Operator: Chevron Canada Resources Limited

1900 - 1055 West Hastings St., Vancouver, B. C.

> GEOLOGICAL BRANCH by ASSESSMENT REPORT

**Godfrey Walton** 

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#### INTRODUCTION

Chevron Canada Rsources Limited optioned the BAM property from Chris Graf in June 1985. Chevron paid cash in lieu to keep the claims in good standing past June 30, 1985 and then did a property evaluation in July and August to evaluate the gold potential. This report discusses this evaluation work.

This property has been explored by numerous companies in the last few years. It is well known for its copper potential and has two zones with a total tonnage of 330,000 tons grading 0.76% Cu. These zones were delineated by Shawnigan Mining and Smelting Company in 1967. Homestake evaluated the gold potential of the claims in 1984.

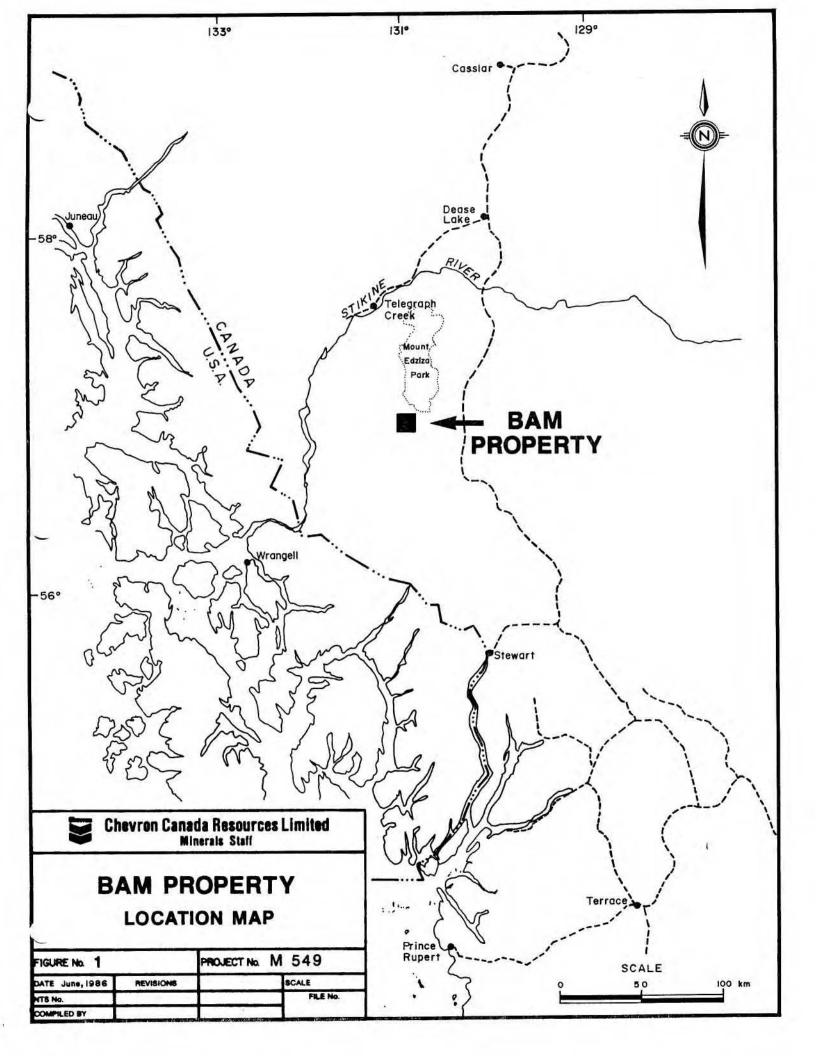
## LOCATION AND ACCESS

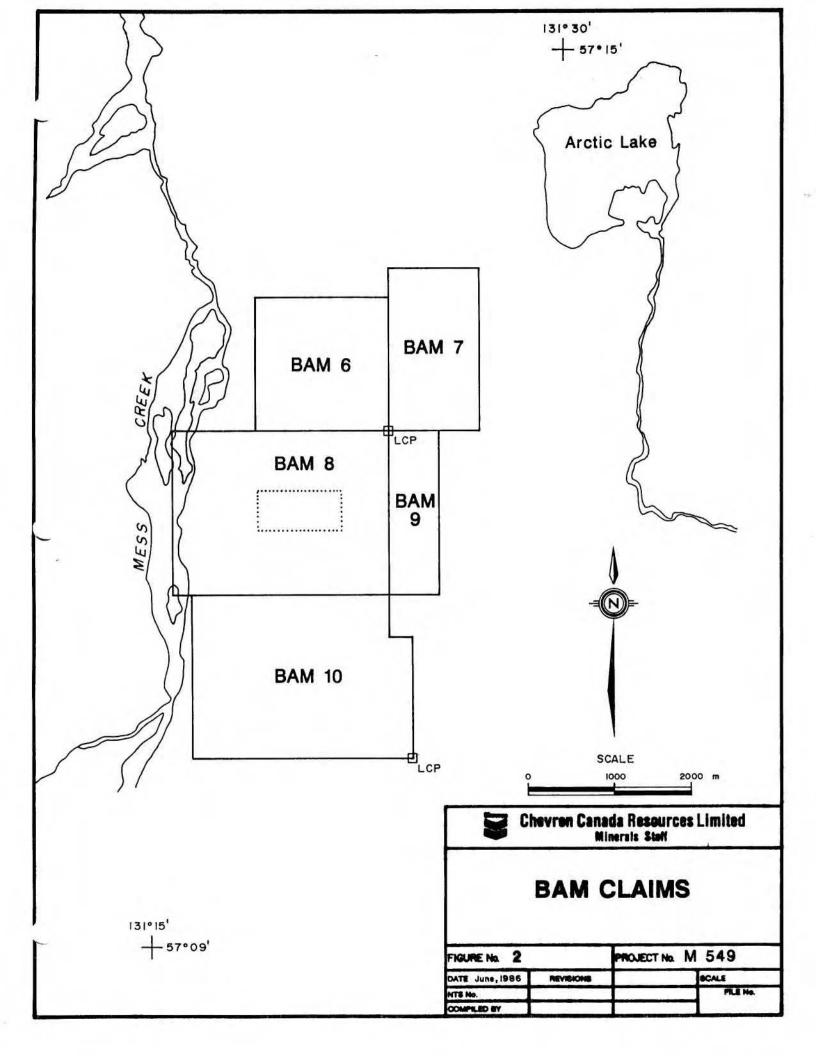
The BAM property is located in the Liard Mining Division at latitude 57°12' and longitude 131°22'. The property is approximately 90 miles southwest of Dease Lake on the southern boundary of Mount Edziza Park. Chevron used a Bell 206B Jet Ranger from Dease Lake to gain access to the property. Previous operators have used Iskut or Tenajon as staging points and flew to Arctic Lake with a float equipped aircraft.

## CLAIM STATUS

The pertinent claim information for the BAM group are outlined below:

Claim	Record Number	Record Date	Number of Units
BAM 6	2841	June 30, 1983	9
BAM 7	2842	June 30, 1983	8
BAM 8	2843	June 30, 1983	20
BAM 9	2844	June 30, 1983	4
BAM 10	2845	June 30, 1983	20





The claims are currently in good standing until June 30, 1986. The work outlined in this report will cover the claims until 1987.

#### REGIONAL GEOLOGY

The BAM property is situated on the easterly flank of the Coast Range mountains.

The basement complex is made up of Upper Paleozoic volcanic and sedimentary rocks.

Triassic to Jurassic aged rocks are comprised of marine and fluvial sediments intercalated with mafic volcanic flows and pyroclastics. These rocks have been intruded by Jurassic to Cretaceous granodiorite, diorite and granite.

To the north of the property recent volcanic activity is represented by numerous cinder cones on Mount Edziza and hotspring activity in Mess Creek valley. Mess Creek represents a major lineament along which faults have been active since Jurassic time.

Significant mineralization as represented by Shaft Creek has been found in the area and numerous other showings of base metals are known. Shaft Creek is a huge porphyry copper deposit with up to a million ounzes of gold present. Gold showings have been noted elsewhere in the area.

#### PROPERTY GEOLOGY

The property geology map has been taken from the geological mapping carried out by Homestake. In summary the oldest rocks on the property are the Permian volcanic, quartzite and phyllitic rocks found at the south end of the property. This unit is overlain by a Permian limestone and dolostone. The shaly members were observed to be petroliferous and fossiliferous. The majority of the copper and silver mineralization was found in the dolostones. These dolostones are overlain by a thick

sequence of Lower Jurassic polymictic pebble conglomerates. A granitic stock intrudes all of these units.

### **GEOCHEMISTRY**

A total of 60 rocks were collected around the property from areas of anomalous gold values identified by Homestake and from the core samples. These samples were all analyzed for gold, silver, arsenic and antimony at Chemex laboratory in North Vancouver. The procedure for analysis is outlined in Appendix A.

Sample BAM 39 (15.6 g/t) was collected on initial trip to the property and provided significant encouragement to have a second visit to the property to collect samples 41 to 73. The large number of anomalous values indicates that this area has potential for significant gold mineralization. The area is underlain by a granitic stock that is dissected by numerous pyrite quartz veins. The granitic rock is highly altered and a polished thin section indicates the gold is coarse and associated with the pyrite grains.

No gold mineralization was found in the core, associated with the tetrahedrite mineralization.

#### CONCLUSIONS AND RECOMMENDATIONS

The gold mineralization found is in an area on claim BAM 10 where Homestake geologists obtained a couple of weakly anomalous gold values. This mineralization looks like it may have potential and warrants a follow up program.

I recommend a program of prospecting, geological mapping, rock sampling and some soil sampling in the vicinity of this showing. A trench should be placed across the zone to open up the outcrop. This mineralization has not been recognized before and may

indicate a new style of mineralization. At present there is no indication of what structural orientation controls the mineralization. Further work could define the controls, especially if trenches were able to provide more outcrop.

The other areas on the BAM claims have been evaluated by Homestake geologists and our initial samples confirm their conclusions that no further work would be necessary on any of the claims except BAM 10.

# STATEMENT OF COSTS

# **BAM CLAIMS**

Manpower	9

-Manpower			
	Position	Field Days	Office Days
L. Dick	Geologist	5	-
G. Walton	Geologist	<u>5</u>	1
		10	ı
Average cost field days = 10 days @\$250.			\$ 2,500.00
Average cost office = 1 day @\$250.			250.00
Food and Acc	commodation		
10 days @\$50/day			500.00
Helicopter			
10 hrs. @\$500/hr. (incl. fuel)			5,000.00
<u>Analysis</u>			
60 samples @\$16.00			960.00
<u>Drafting</u>			
2 man days @\$150/day			300.00
			\$ 9,510.00

## STATEMENT OF QUALIFICATIONS

I, Godfrey Walton, have worked as a geologist since 1974 in Alberta, British Columbia, Yukon, Northwest Territories and Ontario. I graduated in 1974 with a B.Sc. (Hons) degree from the University of Alberta and was awarded a M.Sc degree from Queens University in January 1978. I have been employed by Chevron on a permanent basis since 1976.

I am a member in good standing with the Canadian Institute of Mining and Metallurgy, the Society of Exploration Geochemists and the Mineralogical Association of Canada.

The work done on the BAM claims was done by me and under my supervision.

GODFREY WALTON

#### APPENDIX A

# GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

- Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
- 2. A 1.00 gram portion of the sample is weighted into a calibrated test tube. The sample is digested using hot 70% HC104 and concentrated HN03. Digestion time = 2 hours.
- Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
- Detection limits using Techtron A.A.5 atomic absorption unit.

Copper - I ppm
Molybdenum - I ppm
Zinc - I ppm
\*Silver - 0.2 ppm
\*Lead - I ppm
\*Nickel - I ppm
Chromium - 5 ppm

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

<sup>\*</sup>Ag, Pb & Ni are corrected for background absorption.

## PPM Antimony:

A 2.0 gm sample digested with conc. HCl in hot water bath. The iron is reduced to Fe +2 state and the Sb complexed with l -. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm ± 0.2.

Detection limit: 0.2 ppm

#### PPM Arsenic:

A 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with NaBH4 and the arsenic content determined using flameless atomic absorption.

Detection limit: I ppm

