# GEOLOGICAL SUMMARY

## AND

# EXPLORATION RECOMMENDATIONS

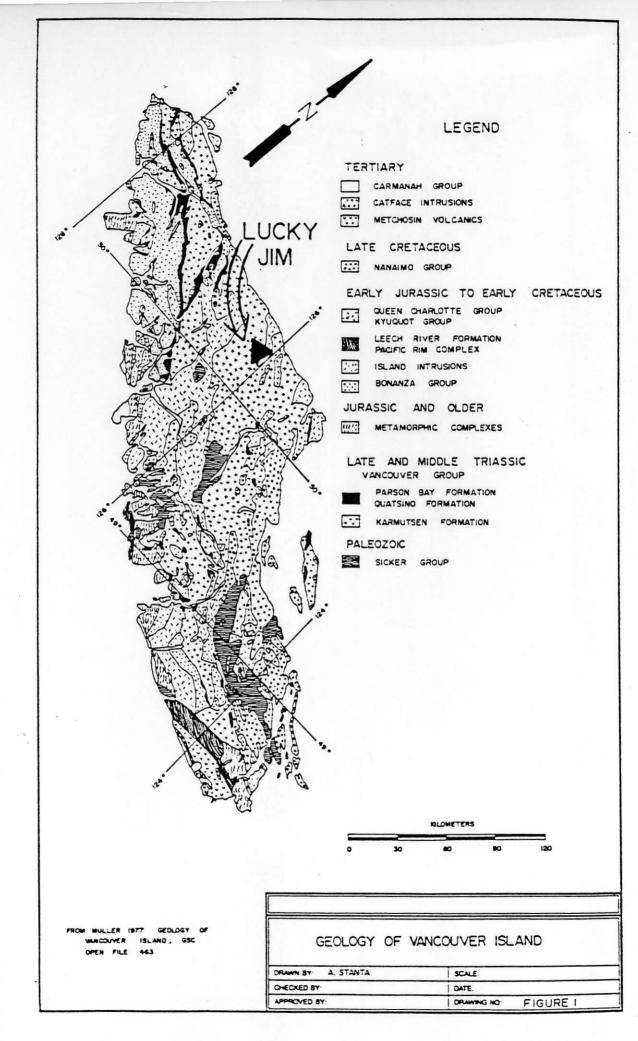
LUCKY JIM PROJECT
Nanaimo Mining Division

NTS Sheet : 92L / 1E, 8E

Latitude : 50 degrees 15 minutes Longitude : 126 degrees 02 minutes

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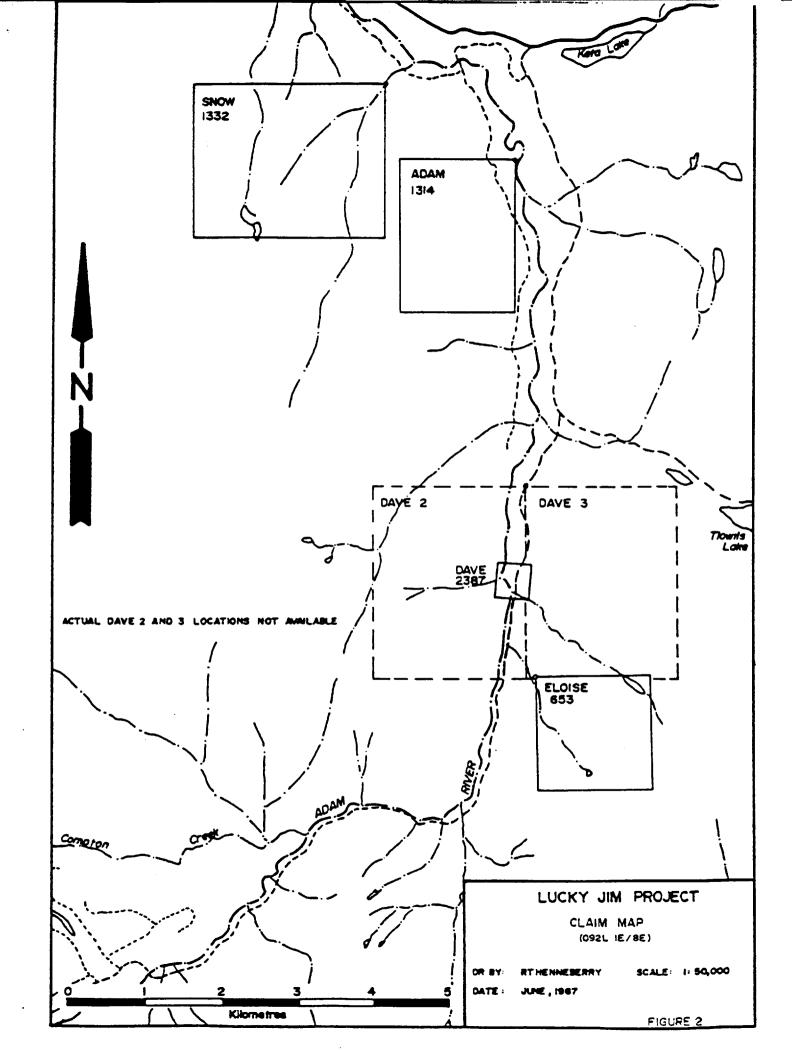
#### INTRODUCTION

The Lucky Jim Property, consisting of 1 two-post mineral claim and 40 additional units, is located within the Nanaimo Mining Division of Vancouver Island. Mineralization of interest is gold associated with sulfides within the contacts of an andesitic dyke of unknown age, intruding Quatsino or Parsons Bay limestone. An expenditure of 60 thousand dollars is recommended to bring the property to a stage for obtaining a listing on the Vancouver Stock Exchange.

## LOCATION AND ACCESS

The Lucky Jim property is located 240 kilometres north of Nanaimo (Figure 1). Actual property location is on the Adam River, 7.8 kilometres south of Highway 19, approximately 11 kilometres north of the Sayward junction. All services are available in Sayward.

This property should be workable throughout the year, with elevations ranging from 300 to 700 metres. The Adam River valley is quite steep, leading to precipitous cliffs at some of the higher elevations.



#### OWNERSHIP

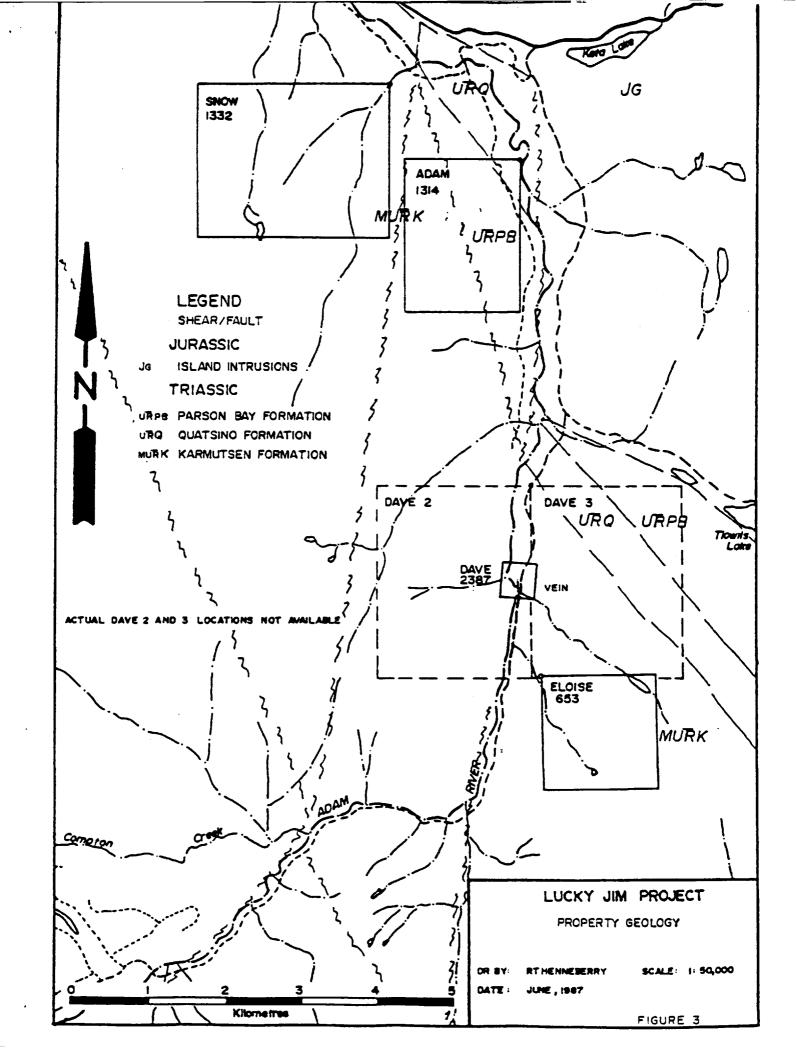
The Lucky Jim showing (Figure 2) is covered by the Dave two-post mineral claim (Record number 2387). Two 20 unit blocks surround the Dave claim to cover additional ground. The Dave claim is owned by Dave Javorsky of Vancouver. The Dave 2 and Dave 3 mineral claims are owned by Welcome North Mines of Vancouver. Mr. Javorsky has arranged a deal whereby Welcome North has formed a partnership with him, to allow the entire package to be optioned. The deal as originally agreed on stands, \$5,000 on signing, an additional \$5,000 on obtaining a listing, and \$10,000 a year until a total of \$100,000 has been paid. The partnership will then retain a 3 percent Net Smelter Return.

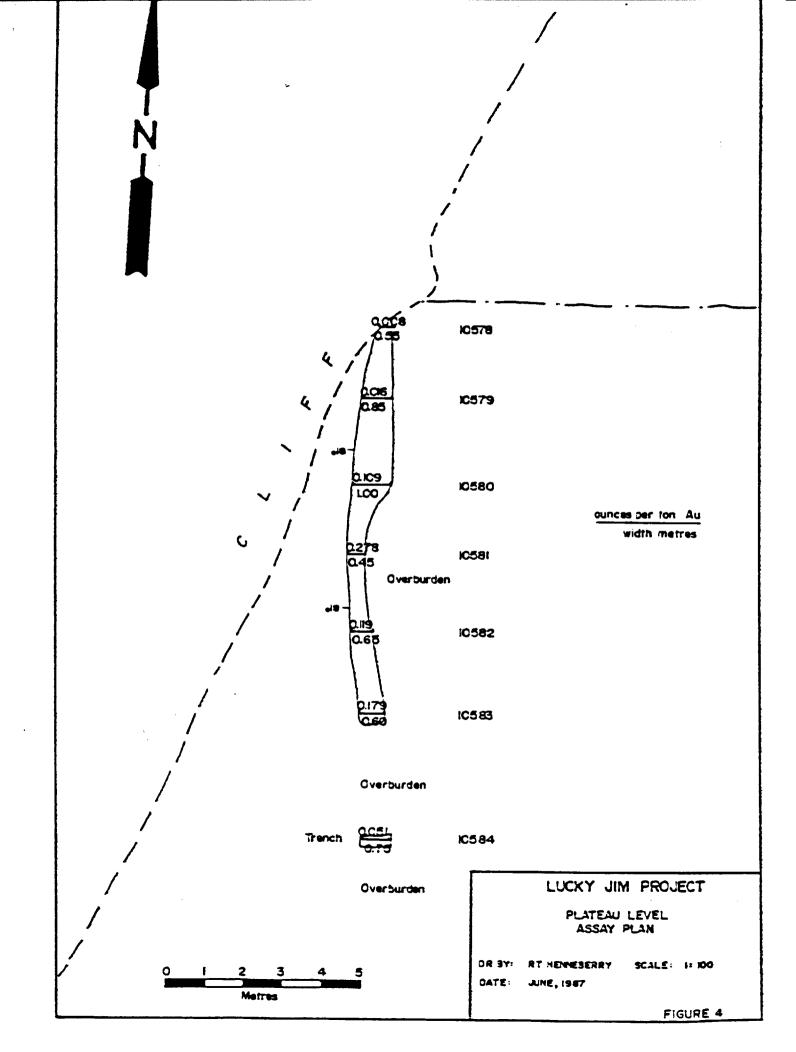
#### HISTORY

The Lucky Jim showing has had a fairly active exploration history. Consolidated Mining and Smelting (Cominco) held an option during the 1920's. Previous to Cominco's option, adits of 4 and 23 metres in width were driven on the structure at river level by the owners in 1918. Cominco explored the property by diamond drilling before allowing the option lapse (Ministry of Mines Annual Report, 1928).

Five M Resources Inc. picked up an option on the showing (then known as the Dik and Dok claims) in 1980. Five M conducted a geological mapping program combined with geophysics (Taylor,1980). They also drilled 5 holes into the mineralized zone along a strike of 100 metres (Sheppard,1981). The author has serious doubts as to whether any of the holes intersected the structure, as all were drilled at steep angles from well within the footwall of the zone.

Five M canceled the option, with Javorsky staking the ground in June 1986.





#### REGIONAL GEOLOGY

This part of Vancouver Island is underlain by rocks of the Vancouver and Bonanza Groups, intruded by Island Intrusions. In the Adam River area, the Vancouver Group is represented by Karmutsen Formation andesitic flows and tuffs, overlain by Quatsino limestone and Parson Bay limey sediments. Bonanza Group rocks consist of Harbledown Formation argillites, greywackes and tuffs, overlain by basaltic to rhyolitic flows and tuffs of the Bonanza Volcanics. The entire sequence has then been intruded by granodiorites to quartz monzonites of the Island Intrusions. Extensive faulting, predominantly striking northwesterly to northeasterly is noted throughout the Adam River area. (Muller, 1977).

## PROPERTY GEOLOGY

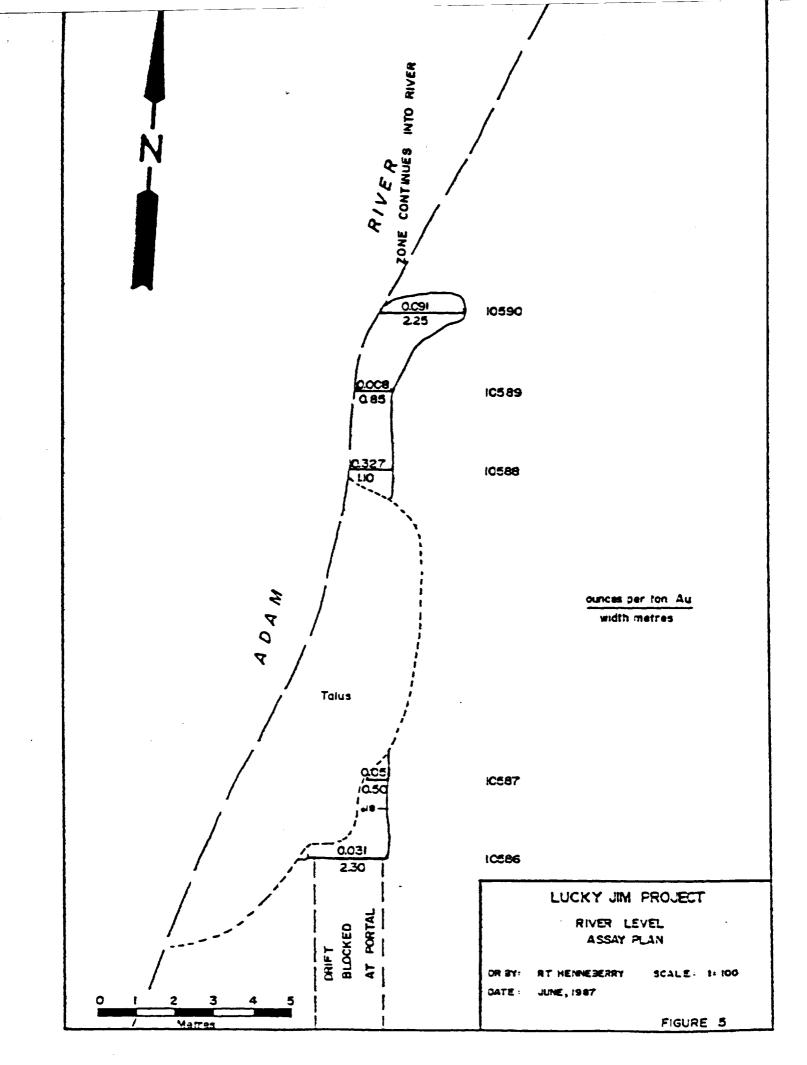
Mapping has not been carried put on a property wide scale, as the brief time spent was confined to the main structure. Combination of geological descriptions of the Eloise Claim (Smitheringale, 1983) to the south and the Adam Claim (Ikona, 1985) to the north suggests the Lucky Jim property is underlain predominantly by andesitic flows and tuffs of the Karmutsen Formation (Figure 3). Limestone of the Quatsino or Parson Bay Formations outcrops on the northeast side of the Dave Claim. The actual contact with Karmutsen andesites is not seen. This limestone is intruded by an andesitic dyke of undetermined age. This dyke hosts the auriferous sulfide mineralization.

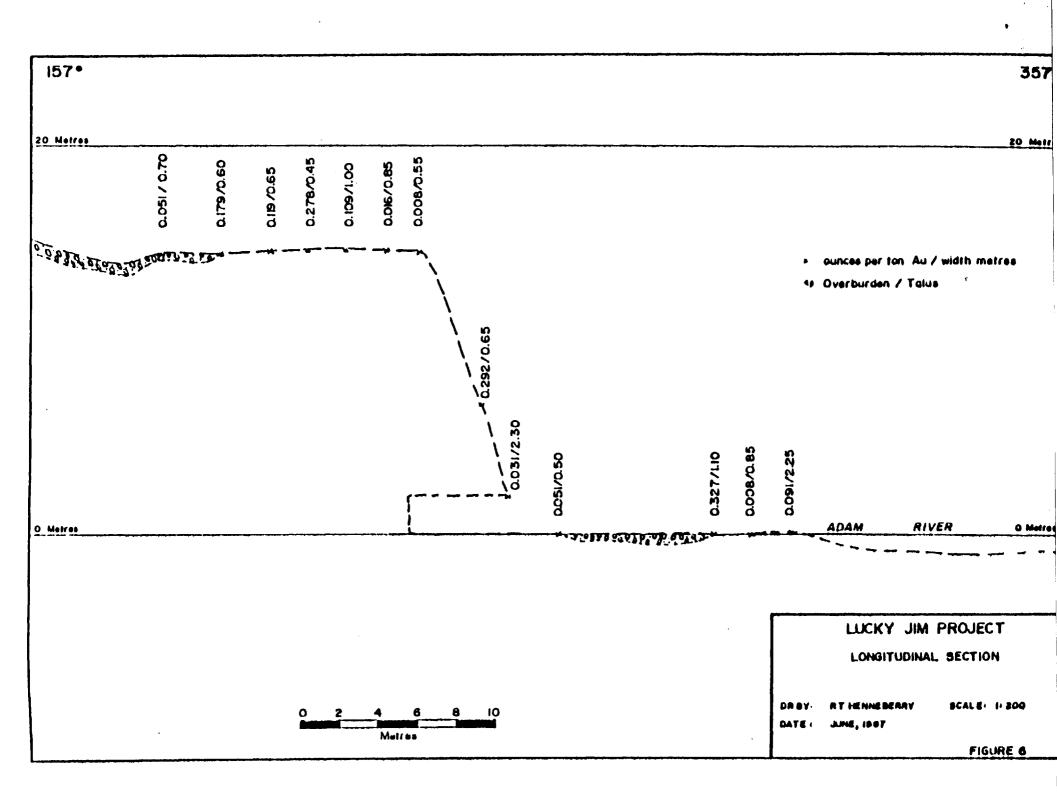
This andesitic dyke (179/81 W) has been traced for 35 metres. The dyke strikes beneath overburden to the south and is still visible beneath the Adam River to the north. Mineralization is confined within the dyke contacts. No mineralization is noted in either the footwall or hanging wall limestone.

Showings are also documented on the west side of the creek though these are inaccessible until low water. They would likely be parallel structures as everything appears to run parallel to the river. Several new logging roads have been constructed over the claim area opening several fresh exposures.

## Plateau Level

The Lucky Jim Zone is traceable for 13.4 metres on the plateau (Figure 4). The zone strikes under overburden to the south, though one hand-trench put down 2 metres from the main outcrop located the zone. 15 metres further south a rusty spring flows, suggesting the zone is still present.





A total of 7 samples were taken at roughly 2 metre spacings along the strike. Widths ranged from 0.45 to 1.00 metres, though the entire zone was not exposed in several of the samples. Mineralization ranged from 0 to 25 percent sulfides, averaging 10 to 15. The dominant sulfide is pyrite, with only minor chalcopyrite noted on the plateau. Alteration within the dyke consists of chlorite, and local silicification (represented by quartz pods?). The dyke itself is heavily oxidized and for the most part extremely massive. Minor bleaching within one metre of the dyke is the only alteration noted in the limestone. Mineralization is not noted in the limestone.

## River Level

The Lucky Jim Zone is traceable for 14 metres on this level, from the cliff face to the point where it strikes beneath the Adam River (Figure 5). Two adits have been driven from the cliff face. One of about 5 metres appears to follow the footwall of the Zone. The second appears to be a hanging wall cross cut. River sediment and wash has rendered the adits inaccessible at present.

A total of 6 samples were taken at river level. Several samples were missed due to heavy river wash. The zone appears to average 2 to 2.5 metres in width where fully exposed. Mineralization runs from 2 to 15 percent sulfides, averaging 5 percent. 10 to 50 percent of the sulfide mineralization is chalcopyrite at this level. The remaining percentage is pyrita.

Again, strong oxidation marks the zone. This rusting is traceable as far as can be seen under the river. Alteration consists of chlorite, with very little silicification.

## Silt Sampling

A total of 11 silts were taken from the property (Figure 7). Anomalous values were obtained from three creeks along the Adam River logging road. All three anomalous values plot considerable north of the Lucky Jim showing, well within the hanging wall. Perhaps a second parallel structure is present?

## REFERENCES

Ikona, C.K. (1985). Assessment Report on the Adam Claim. BCMEMPR Assessment Report 14,284.

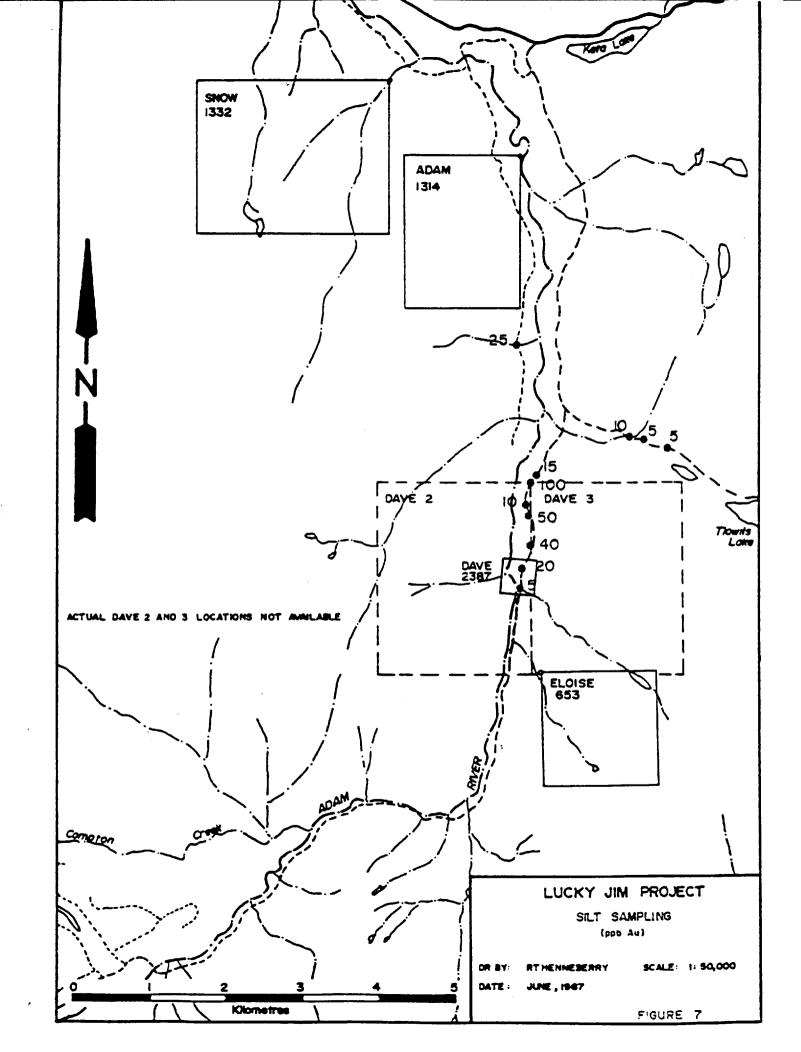
Muller, J.E. (1977). Geology of Vancouver Island. Geological Survey of Canada Open File 463.

Sheppard, E.P. (1981). Report on Diamond Drill Program for Five M Resources Inc. Dik Claim. BCMEMPR Assessment Report 9065.

Smitheringale, W.G. (1983). Report on Geochemical and Geophysical Surveys on the Eloise Claim. BCMEMPR Assessment Report 11,730.

Taylor, B. (1980). Geological and Magnetic Assessment Report on the Dik and Dok Mineral Claims. BCMEMPR Assessment Report 8190.

Taylor, B. (1982). Ground Magnetic Survey Assessment Report on the Eloise Claim. BCMEMPR Assessment Report 10,479



#### DISCUSSION

The sampling results on the Lucky Jim Vein suggest further work is warranted. Studying the available geological data on mineral claims in the Adam River area, can help direct an effective exploration program on the Lucky Jim.

Exploration programs have been undertaken on the present Dave claims (Taylor, 1980; Sheppard, 1981), the Eloise Claim (Taylor, 1982; Smitheringale, 1983) to the south and the Adam Claim to the north (Ikona, 1985).

Geochemical surveys were run over the Eloise and Adam Claims. Gold was analyzed for on the Adam Claim but not the Eloise Claim. Anomalous gold values were obtained by Ikona, though these anomalies are yet to be followed up. Anomalous Zn values were obtained on the Eloise claim, but did not amount to much.

Geophysical surveys were run over the present Lucky Jim showing, and the Eloise Claim. Results of magnetometer surveys were unsatisfactory in both instances, as the structures of interest did not display a geophysical signature. VLF-EM was not attempted on either property.

Silt sampling was undertaken by the author with interesting results.

Therefore, an exploration program directed at locating the strike extension of the Lucky Jim Vein should utilize geochemical methods. A magnetometer survey will not accomplish anything, while a VLF-EM survey may be worthwhile.

A property wide prospecting program should be undertaken. Cominco documentation identifies adits to the south of Lucky Jim as well as parallel zones across Adam River. This prospecting should be combined with silt sampling on the west side of the river.

#### RECOMMENDATIONS

The following exploration program is recommended as the next phase for the Lucky Jim property:

Property wide prospecting, mapping and silt sampling 5 days duration

Geochemical grid to test south strike potential of Lucky Jim Vein 500 metre base line with line spacing of 50 metres 500 metre cross line length 25 metre sample stations

Trenching Lucky Jim Vein

Clean talus at river level to allow access to covered areas

Clean portals to allow access to adits

Clean plateau level along strike where possible.

This program should be accomplished on a budget of 60 thousand dollars. At this time the property should be in shape for a listing on the VSE.

R.Tim Henneberry, FGAC Consulting Geologist June 4, 1987