81-#858, -# 9902.

REPORT ON THE PETROGRAPHY OF THE ROCKS OF THE RABBITT MASSIVE SULPHIDE PROPERTY RABBITT AND BOULDER CLAIM GROUPS SIMILKAMEEN MINING DIVISION BRITISH COLUMBIA



By: L.E. Thorstad

Latitude: 49° 35' to 49° 38'

Longitude: 120° 47' to 120°

NTS: 92H/10 Tulameen 1:50,000

Owner: Harold J. Adams

Operators: Ventures West Minerals Ltd. and Kenam Resources Ltd.

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### FIGURES

FIGURE 1	RABBITT PROPERTY - RABBITT AND BOULDER MOUNTAINS LOCATION MAP	Follows page 2
FIGURE 2	LOCATION MAP - INTERNATIONAL GROUP - RABBITT PROPERTY	Follows Figure 2
FIGURE 3	SAMPLE LOCATION MAP - RABBITT PROPERTY - INTERNATIONAL GROUP	

### APPENDIX

APPENDIX I DETAILED PETROGRAPHIC DESCRIPTIONS

### INTRODUCTION

As part of assessment work on the YMIR, MORNING, OSHKOSH, WINNIBAGO, BLACKBIRD, BERLING FRACTION, FREDDIE BURN, and ANACONDA crown grants of the INTERNATIONAL GROUP, rock samples were thin sections and examined during May of 1981.

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LOCATION

The International Group is part of a group of claims deemed the "RABBITT PROPERTY" located 2 miles northwest of Tulameen, B.C. on Rabbitt and Boulder Mountains (Figures 1 and 2).

#### HISTORY

The showings were discovered in the early 1900's and worked intermittently since this time. The property was staked by H. Adams in 1976. In 1979 Kenam Resources and Ventures West Minerals Ltd. optioned the property and began work on it.





DETAILED PETROGRAPHY OF VOLCANIC ROCKS - RABBITT PROPERTY

During the period from April 30th to May 4th and on August 3rd, 1981, samples collected from the International Group which consists of Boulder Claims and Crown Grants YMIR (L264), MORNING (L265), OSHKOSH (L269), FREDDIE BURN (L270) and ANACONDA (L373), were thin sectioned and examined by the author to better understand the nature and alteration of the volcanic rocks and to determine whether some alteration is related to a mineralizing event rather than being totally attributed to regional metamorphism. Petrographic Sample locations are shown in Figure 3.

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#### DISCUSSION

Rocks of the Rabbitt Property (International Group) are an assemblage of andesitic to dacitic fragmental units that interdigitate with each other and minor flow units. They have been assigned to the Nicola Group.

Rocks have been metamorphosed to lower greenschist facies as reflected in their metamorphic mineralogy. In general, alteration of rock units appears to be a regional metamorphic effect rather than being related to mineralizing events. One unit overlying massive sulphide mineralization on the north end of the property is intensely silicified and, fracture and alteration differs markedly from the common seriate, chlorite, carbonate. and/or epidote alteration that typifies other rocks.

Detailed petrographic descriptions are appended.

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### STATEMENT OF COSTS

Thin section examination 3.5 days at \$150.00/day	\$	525.00
Report 2 days at \$150.00/day		300.00
Secretarial and office		160.00
Photocopies		20.00
Thin Sectioning	. <u>,</u>	126.00
TOTAL	\$1	,131.00
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#### CERTIFICATION

- I, Linda E Thorstad, do hereby certify that:
- I am a geologist residing in British Columbia at 3529 West 3rd Avenue, Vancouver, B.C.
- 2. I attended Vancouver City College for one year and the University of British Columbia for five years.
- 3. I have had eight summer's experience in both regional and detailed mapping, and mineral exploration in Northern British Columbia, the Northwest Territories and the United States.
- 4. My report, dated August 3, 1981, is based on detailed examination of thin sections made from rock samples taken on the Rabbitt Property.
- 5. I have no personal interest, direct or indirect in the property covered by the submitted report.

Respectfully submitted, TADEXTO bda E

August 3, 1981, Vancouver, B.C.

# APPENDIX I

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## DETAILED PETROGRAPHIC DESCRIPTIONS

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SAMPLE 3A - GREY-WHITE SILICIC SCHIST

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Handspecimen:	Rhyodacite to rhyolite tuff and breccia interlayered with fine sericite schist.
Thin Section:	General Description: Fragments composed of quartz and feldspar are found in a fine mass of sericite, quartz and feldspar. Small quartz aggregates are also evident.
Mineralogy:	Feldspar is highly fractured and replaced by carbonate and albite.
	Quartz is generally microcrystalline aggregates that show undulose extinction. Crystals show minor seriate replacement.
	Sericite occurs as fine bladed aggregates that replace quartz and feldspar crystals.
Texture:	Rock is moderately foliated.
Discussion:	Metamorphic minerals appear resultant from one metamorphic event.

SAMPLE 4 - ANDESITE-DACITE BRECCIA

Hand Specimen:	Pale green to moss green andesitic to dacitic breccia that contains some characteristic white (acidic?) fragments. The matrix is dominantly a fine augite, feldspar crystal tuff Fragments range in size from .5 to 3 cm and generally have well-defined, but diffuse boundaries. Some of these fragments appear to be fragmental in nature themselves.
Thin Section:	Matrix Mineralogy: Carbonate occurs commonly along grain boundaries. <u>Plagioclase</u> is the dominant matrix mineral and is replaced by sericite, carbonate, epidote and chlorite. <u>Sericite</u> replaces feldspar crystals. <u>Chlorite</u> replaces feldspar.
	Fragment Mineralogy: <u>Plagioclase</u> is extensively replaced by carbonate and lesser amounts of sericite. <u>Carbonate</u> replaces feldspar. <u>Sericite</u> replaces feldspar. <u>Epidote</u> - very minor amounts replace feldspar.
Texture:	Rock is moderately well foliated and relict grains are commonly fractured and show eu echelon offsets parallel to the foliation.
Discussion:	Fragments are more extensively replaced by carbonate than the matrix. Only one metamorphic event is evident.

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#### SAMPLE 4A - ANDESITE TUFF

Hand Specimen: Augite, feldspar porphyry tuff that is moderately well foliated. Feldspar is the dominant phenocryst with lesser augite phenocrysts replaced by chlorite.

Thin Section: General Description: Well foliated chloritic tuff.

Mineralogy:

30% <u>Plagioclase</u> largely replaced by carbonate and chlorite, low extinction angles suggest albitic composition. 8-10% <u>Chlorite</u> occurs as clots (commonly with epidote) replacing original mafic grains. 30-35% <u>Epidote</u> - irregular blebs dominantly replacing the fine matrix. 10-12% <u>Carbonate</u> as irregular blebs replacing the matrix and some phenocrysts.

Texture: Relict textures including relict phenocrysts suggest that rock is a fine porphyry or crystal tuff.

Discussion: The original rock has been extensively replaced by secondary metamorphic minerals including carbonate, chlorite and epidote. There is no textural evidence to suggest more than one phase of alteration. SAMPLE 14C - EPIDOTIZED FELDSPAR PORPHYRY

Medium grained grey-green feldspar porphyry Hand Specimen: is highly saussuritized. Feldspar grains show some possible trachytic alignment. The matrix is fine feldspar, chlorite schist. Thin Section: General Description: Altered plagioclase crystals occur in a fine matrix of feldspar, quartz epidote and chlorite. Mineralogy: 30-40% Plagioclase replaced by carbonate and epidote, low extinction angles suggest composition is albitic. 10-12% Epidote occurs as irregular blebs and elongate blades replacing feldspar. 10-15% Chlorite commonly occurs along fringes of feldspar crystals; also as fine masses probably replacing mafic phenocrysts. 10-15% Sericite replaces fine matrix. 3-4% Carbonate replaces feldspar crystals 1-2% Quartz as fine grains in matrix. 2-3% Pyrite both as cubic and flattened irregular blebs.

Texture: Rock is moderately well foliated. Some feldspar aggregates are evident.

SAMPLE 17B - FELDSPAR CRYSTAL TUFF

Hand Specimen:	Fine grey-white feldspar porphyry with rare quartz eyes.
Thin Section:	<pre>Mineralogy: 50-55% <u>Plagioclase</u> in fragments, as feldspar aggregates and in fine matrix, composition is albitic. 9-10% <u>Chlorite</u> replaces fine matrix and fragments, there is generally less chlorite in fragments. 4-5% <u>Epidote</u> replaces fine matrix and feldspar grains. 2-3% <u>Pyrite</u> - fine disseminated grains. 1-2% <u>Quartz</u> - fine grains in matrix; show undulose extinction.</pre>
Texture:	Matrix grains have diffuse borders; no well developed foliation is evident.

SAMPLE 19A - ANDESITIC TO DACITIC TUFF AND BRECCIA

Hand Specimen: Unit is gradational with white to grey sericite schists. Green to blue-green schistose tuff and breccia has abundant fragments of feldspar, chlorite porphyry matrix and grains have similar compositions.

Thin Section: Mineralogy: 50-55% <u>Plagioclase</u> occurs as fine matrix grains, single crystals or crystal aggregates; fine sericite alteration. 6-7% <u>Chlorite</u> as fine grains replacing matrix; some clots may pseudomorph mafic grains. 5-10% <u>Quartz</u> - fine grains in fragments. 5-6% <u>Sericite</u> as fine grains throughout matrix and feldspar grains. 2-3% <u>Epidote</u> as irregular blebs replacing feldspar grains. 2-3% <u>Pyrite</u> as fine cubic crystals disseminated in bands.

Texture: Rock is well foliated.

SAMPLE 21 - DACITIC FELDSPAR CRYSTAL LAPILLI TUFF

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Hand Specimen:	Pink to milky-white feldspar grains occur in
	a fine blue-green feldspathic matrix.
Thin Section:	Mineralogy:
	Plagioclase commonly show bent and fractured
	grains and are replaced by carbonate and
	sericite.
	1-2% Quartz as fine matrix grains and in
	veinlets and fractures.
	Potassium feldspar as phenocrysts replaced by
	carbonate and sericite.
	3-4% Carbonate as fine irregular blebs and
	along fractures.
	2-3% Chlorite replace fine matrix.
	3-4% Sericite replacing feldspar grains
	1-2% Pyrite - cubic crystals and as fine
	irregular blebs; often with carbonate in
	fractures.
Texture:	Rock does not exhibit a well developed

Rock does not exhibit a well develop foliation.

#### SAMPLE 26 - SERICITE SCHIST

- Hand Specimen: Grey to white sericite schist has some more competent, less sheared, limonitic patches that may be fragments.
- Thin Section: General Description: Fine grained sericitic tuff.

Mineralogy:

<u>Plagioclase</u> - fine bent and fractured grains. <u>Quartz</u> - fine crystals, crystal aggregates, and crystalline mosiacs showing undulose extinction. Up to 8% <u>Pyrite</u> - fine disseminated cubes. 4% <u>Carbonate</u> with sericite. 15025% <u>Sericite</u> replaces all grains; has associated limonitic staining.

Texture: A possible crude layering is defined by sericite abundance. Crystalline lenses of quartz and fledspar are probably relict fragments. Rock is extremely well foliated. SAMPLE 30A - MASSIVE ACID TUFF

White weathering, highly fractured, massive Hand Specimen: silicic tuff. Thin Section: General Description: Silicified tuff. Mineralogy: Feldspar - very fine grained, some albite twinning indicates the presence of plagioclase. Quartz - commonly as fine masses or crystalline mosiacs, also in veinlets. Carbonate - along fractures with limonite and disseminated pyrite; also as irregulr blebs replacing quartz and feldspar grains. Texture: The presence of crystal aggregates or clots is suggestive of a tuffaceous origin. Most original texture has been destroyed by intense silicification. Discussion: The intense silicification of this unit may be related to solutions of the mineralizing event

rather than to regional metamorphism.

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