

LOG NO: 0223	RD.
ACTION:	
FILE NO:	

GEOLOGICAL REPORT ON THE
 VERA CLAIM GROUP OF
 CANOVA RESOURCES LTD.

NTS 82L/6W

Latitude: 50°21' North
 Longitude: 119°23' West
 Vernon Mining Division

David Shaw

Resource Research Group/C.S.L.

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

16,816

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES	
Rec'd	FEB 18 1988
SUBJECT	_____
FILE	_____
VANCOUVER, B.C.	

February 1988

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
Location, Access and Physiography Property	1 1
PREVIOUS WORK	3
REGIONAL GEOLOGY	3
PROPERTY GEOLOGY	3
SAMPLING	6
INTERPRETATION	8
RECOMMENDATIONS AND PROGRAMME	11
BIBLIOGRAPHY	13
COSTS INCURRED	15
APPENDIX I: Statement of Qualifications	16

LIST OF FIGURES

	<u>PAGE</u>
Figure 1. Location Map	2
Figure 2. Claim Map	4
Figure 3. Topography Map	5
Figure 4. Location of Showing	7
Figure 5. Detailed View of Showing	9
Figure 6. Detailed View of "Feeder" Zone	10

INTRODUCTION

The property was examined at the request of Mr. James Hirst, President of Canova Resources Ltd., the purpose being to recommend and implement an exploration programme. Flow-through funding for a programme has been made available by the N.I.M. Fund.

Two and one half days were spent examining the property, of this one day was spent prospecting for outcrop and one and a half days were spent at and around the showing.

Location, Access and Physiography

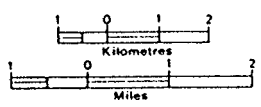
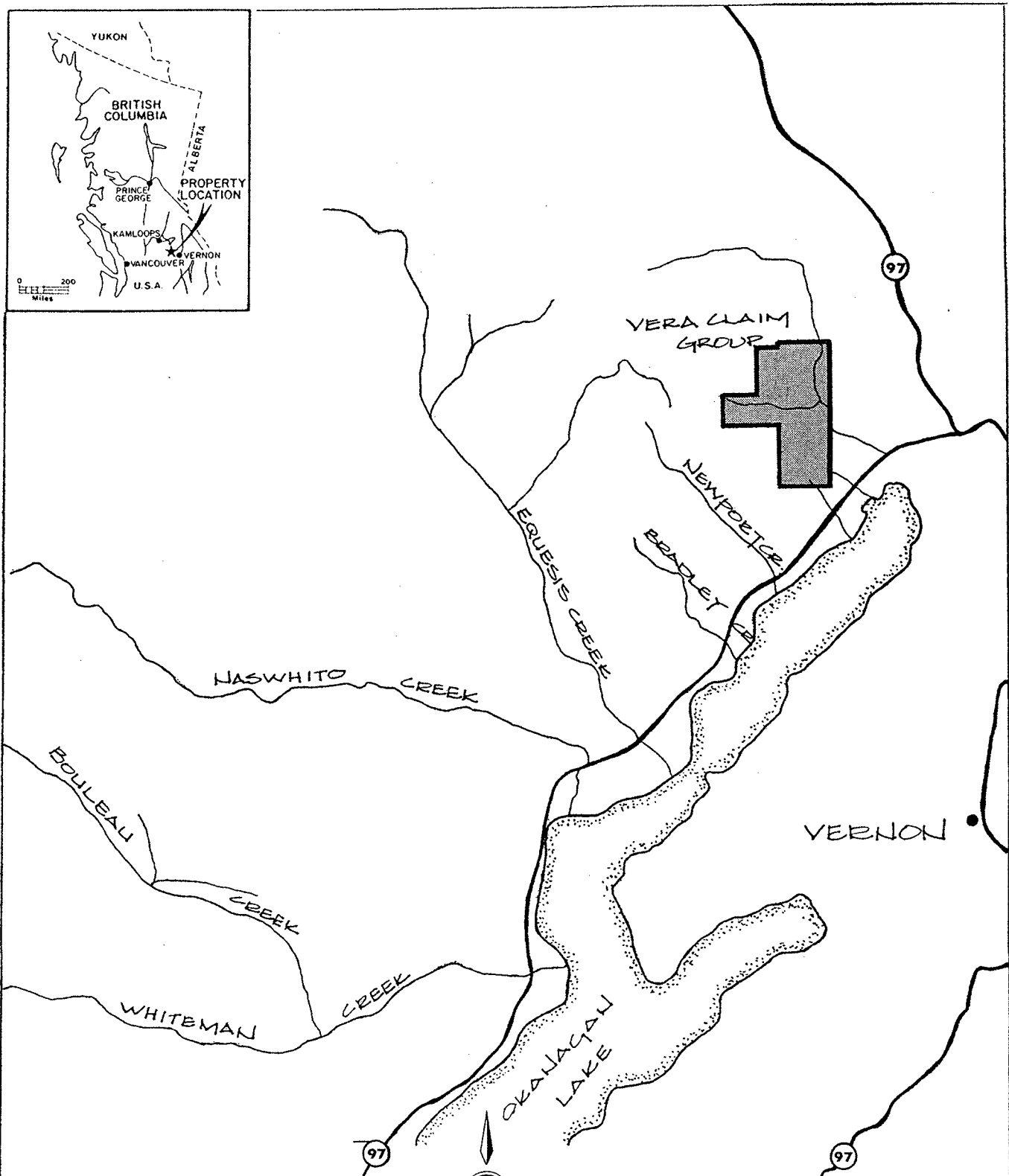
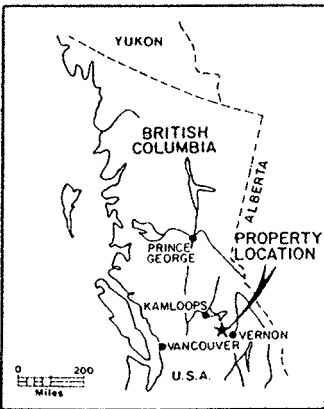
The property lies 60 km north of Kelowna, B.C. on the west side of Okanagan Lake near its northern end. The latitude is $50^{\circ}21'$ north and the longitude is $119^{\circ}23'$ west. It is in the Vernon Mining Division.

Road access to the property from the Highway is along a relatively steep and winding track about 4 km in length. This track climbs from an elevation of 360 m a.s.l. to 470 m a.s.l. at the showing.

The claims are located on the summit area, east and north-east facing slopes of a plateau at the northwest end of Okanagan Lake. The plateau elevation varies from 1,050 to 1,350 m a.s.l.

Property

The property consists of six 2-post claims, the Vera #1-6, record numbers 1764, 1765, 1841-1844 inclusive, recorded in the name of Vera Squinas of Penticton, B.C., the 12 unit claim, Golden Zone #1, record number 2273, recorded November 8, 1985; the 12 unit claim Golden Zone #2 and the 6 unit claim Golden Zone #3, record numbers 2278 and 2055 respectively, and the 3



VERA CLAIM GROUP	
LOCATION MAP	
FOR: CANOVA RESOURCES LTD.	
BY: D. SHAW	
82 L/6	
FEBRUARY '88	FIGURE 1

unit claim Gloria #1, record number 2059. These claims are all owned by Canova Resources Ltd.

Golden Zone #1 overstakes the six 2-post claims.

PREVIOUS WORK

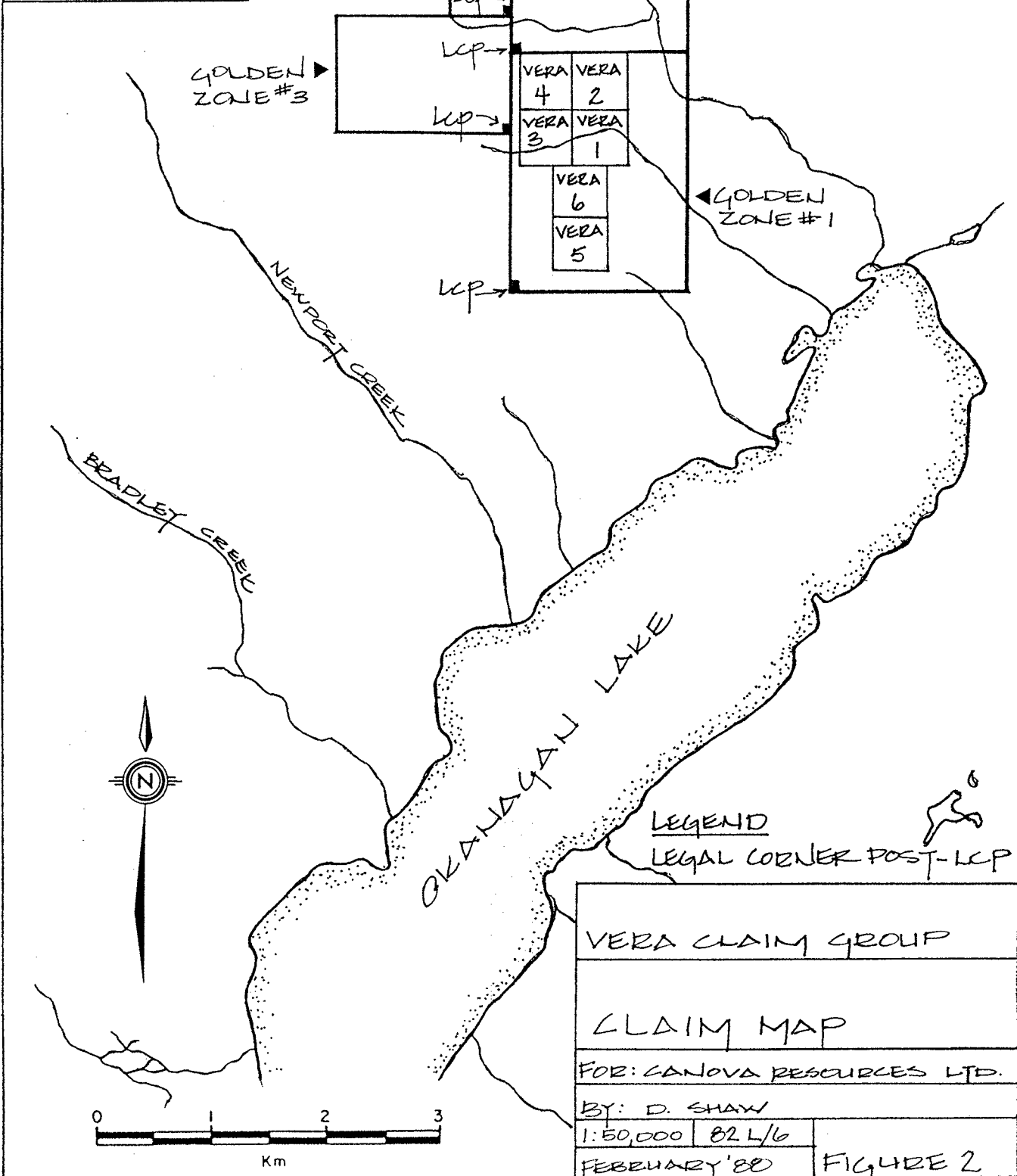
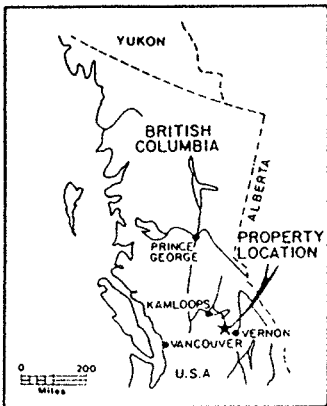
The showings were discovered in 1923, a small adit and pits were excavated. Since then two limited soil geochemical surveys, prospecting, trenching and high-grading have been done. Three reports (Daughtry, 1980; Wilmot, 1985; Livgard, 1986) have been written concerning various aspects of the property.

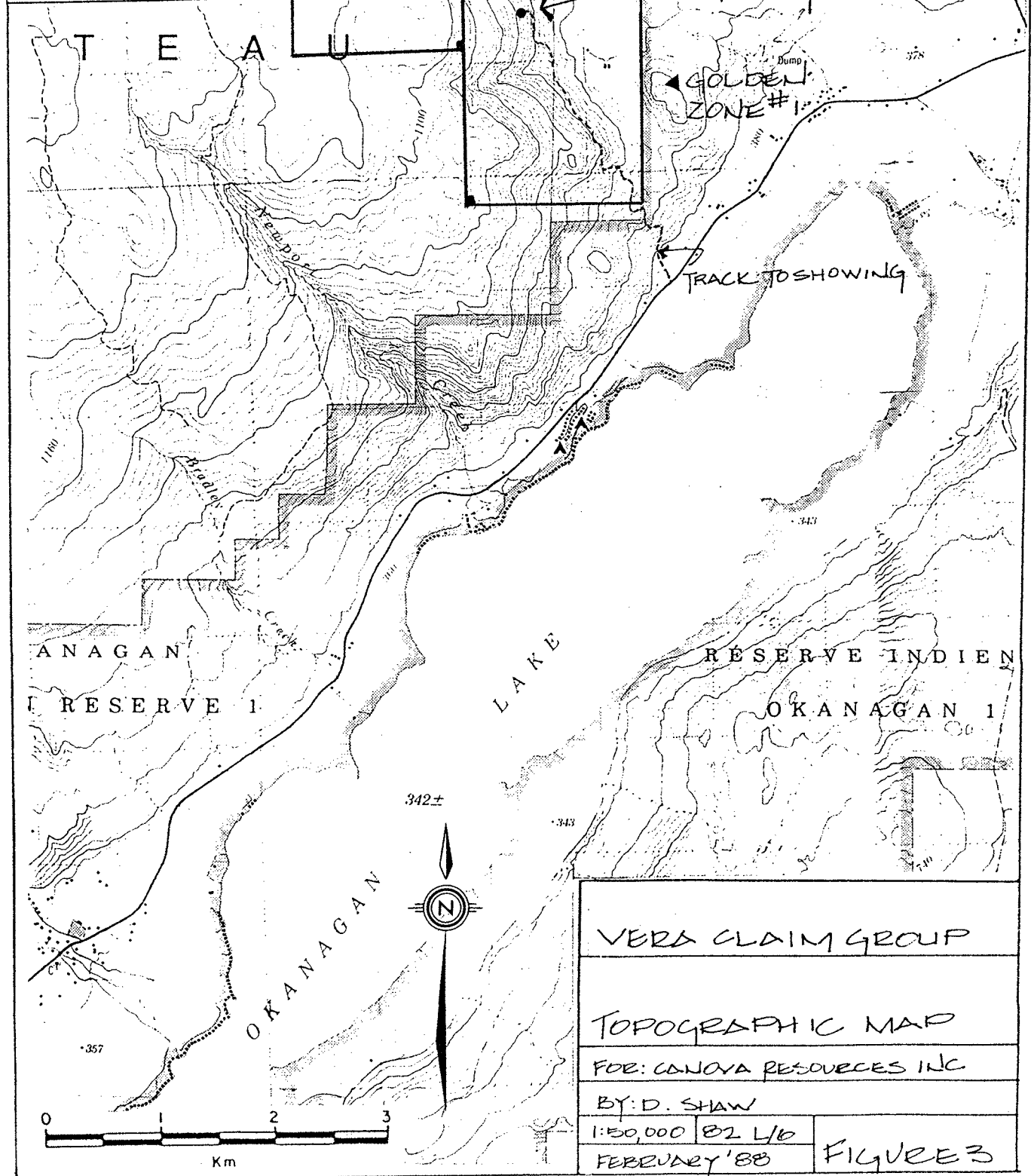
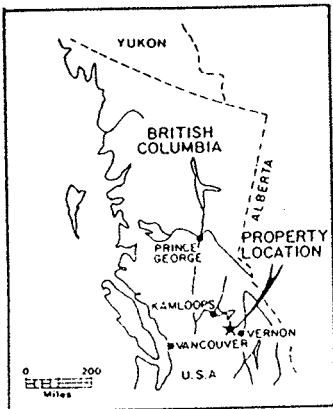
REGIONAL GEOLOGY

Upper Triassic Nicola Group volcanics form the majority of the outcrop in the area: these consist of andesite and basalt, breccias and tuffs, agglomerate, augite andesite, chloritic phyllite, minor argillite, limestone and sericitic schist. The Sicamous Formation of the Slocan Group (Upper Triassic) surrounds the Nicola Volcanics: these are comprised of shale, argillite, massive siltstone, phyllitic tuff and calcareous pelite. The main regional structural features are northwest striking faults.

PROPERTY GEOLOGY

Outcrop on the property is extremely limited and confined to road-cut banks. Once away from the road/track on the property the vegetation becomes dense, the soil and till cover is well developed. Soil/surface cover slumping is evident but is too shallow to reveal the nature of the bedrock. The main showing is exposed in an east facing bank and consists of massive white quartz hosted by massive, porphyritic, augite andesite. The quartz distribution is fracture controlled, the main fracture orientation having a north-south strike direction





and a moderate dip towards the west. The host rock is strongly jointed, the major joint orientations are 30/180 (dip/strike), 65/005, 85/280. The three joint orientations are well exposed in the porphyry in a road bank upslope from the main showing.

Within the small adit at the showing, the massive white quartz vein can be traced inwards for about six feet and then it ends abruptly. It appears to have been offset by a post-mineralization movement along a steep fracture.

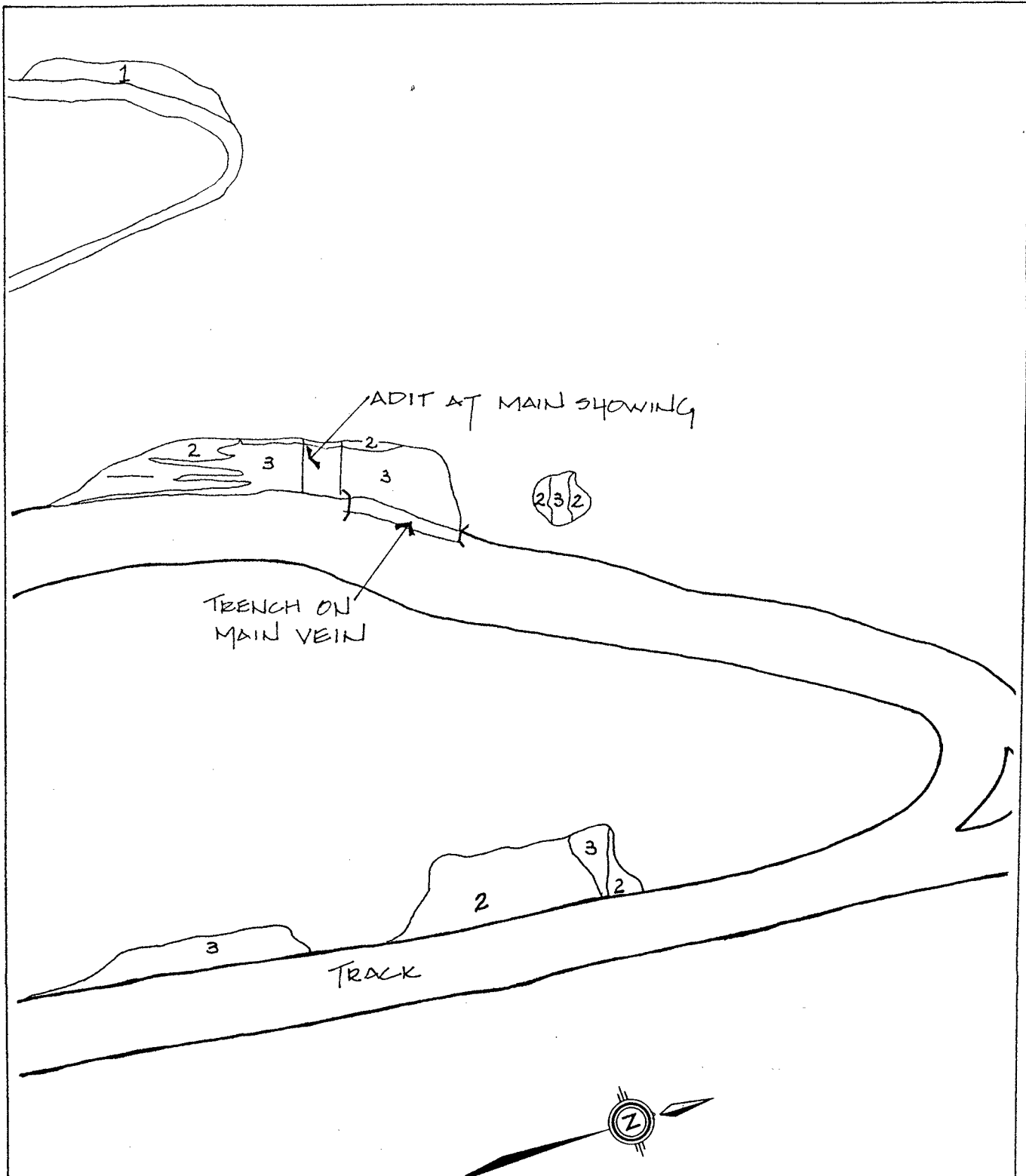
When traced southwards the massive quartz vein thins dramatically within the space of a few metres. The (centimetres in thickness) parallel quartz veins with an orientation similar to that of the main vein, occur along strike and peripheral to the main showing. At the north end of the road cut containing the main showing there is another quartz vein that has a similar orientation to that of the main vein but structurally overlies it.

On the road below the main showing, there is a large road-cut bank within which is exposed a steep to vertically dipping, southwest/northeast striking, cleaved white quartz vein. The vein varies in width from a few centimetres to 1 1/2 metres. When projected along strike to the southwest (upslope), the vein strikes into the main showing at its northern end. When traced along strike to the northeast, the vein can be vaguely identified in the road-bed but is then lost down-slope in the soil covered, densely vegetated slope.

The other road-cuts seen all exposed fractured, basalt flows that showed no evidence of mineralization or alteration.

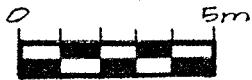
SAMPLING

No sampling was done during the property examination. It was obvious that the veins had been methodically high-graded,



LEGEND

- 3 MASSIVE WHITE SILICA
 - 2 AUGITE PORPHYRY
 - 1. TUFFACEOUS BASALT
- } UPPER TRIASSIC
} NICOLA GROUP



VERA CLAIM GROUP

LOCATION OF MAIN SHOWING -
VIEWED LOOKING WEST

FOR: CANOVA RESOURCES INC.

BY: D. SHAW

FEBRUARY '88

FIGURE 4

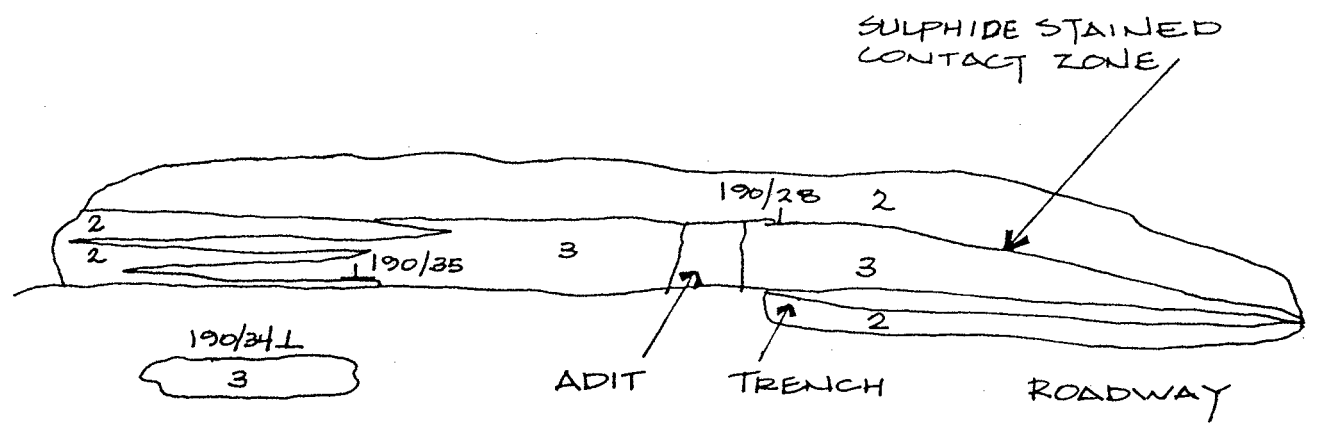
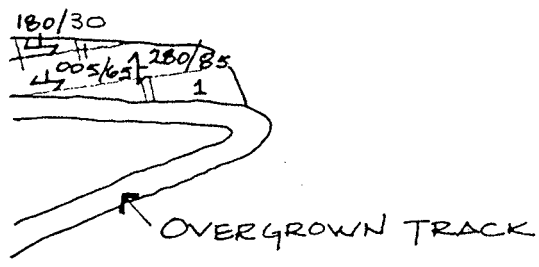
the remainder being massive, barren (no sulphides present) white quartz. (For sampling results refer to Livgard, 1986).

According to Livgard (1986), the mineralization consists of freibergite (silver rich tetrahedite), sphalerite, galena, pyrite and native gold, sulphide concentrations occurring in the sheared (?) hangingwall of the quartz. Fragments produced as a result of trench blasting were evident on the track adjacent to the trench. All of the minerals referred to by Livgard were recognized with the exception of native gold. On the upper contact of the massive quartz vein there was sulphide staining, indicating that the fragments had probably been derived from this location.

INTERPRETATION

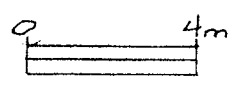
The main showing consists of a major quartz vein (up to 6 ft. thick) with numerous minor quartz veins structurally hosted by flat lying tensional joints within a competent volcanic porphyry. These veins have been sourced by a steeply dipping to vertical "feeder" vein which is recognized below the main showing. The "feeder" vein is a fault/tensional zone along and up which silica has been injected. When this structure contacted rock already fractured, the silica was able to flow out laterally from the feeder. A crude analogy may be made with the saddle-reef type of gold deposits in Nova Scotia in which narrow, high grade gold veins have been mined.

Regionally within the Upper Triassic Nicola volcanic rocks there are other similar examples of structurally controlled, silica hosted zones of gold mineralization. Common elements include a feeder fault zone, of varying width, which is steep to vertically inclined, that has enabled silica solutions to penetrate rock within which laterally persistent zones of "porosity" are present. These zones of "porosity" may occur as

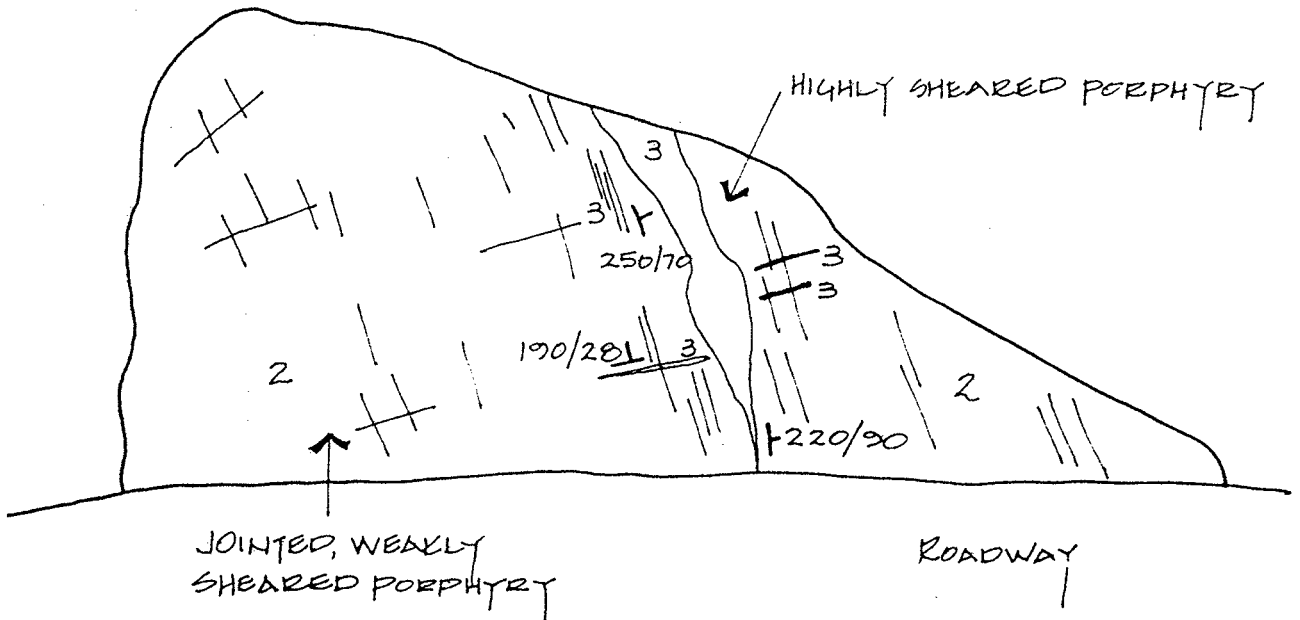


LEGEND

- 3 MASSIVE WHITE QUARTZ
- 2 AUGITE PORPHYRY } UPPER TRIASSIC
- 1 TUFFACEOUS BASALT } NICOLA GROUP
- 190/34 LAYER STRIKE AND DIP
- 280/85 JOINT SURFACE " "



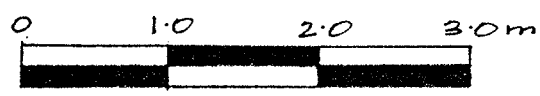
VERA CLAIM GROUP	
DETAILED VIEW OF SHOWING (LOOKING WEST)	
FOR: CANOVA RESOURCES INC.	
BY: D. SHAW	
FEBRUARY '88	FIGURE 5



LEGEND

- 3 MASSIVE, WHITE QUARTZ
- 2 AUGITE PORPHYRY } UPPER TRIASSIC
- 1 TUFFACEOUS BASALT } NICOLA GROUP

† 250/70 LAYERING STRIKE AND DIP



VERA CLAIM GROUP	
DETAILED VIEW OF FEEDER ZONE (LOOKING WEST)	
FOR: CANOVA RESOURCES INC	
BY: D. SHAW	
FEBRUARY '88	FIGURE 6

a result of tectonic process (as on this property) or by sedimentological process.

The recurring problem with many of these situations is that they are restricted in size. The grades are usually high e.g. recorded grab samples at the Vera property have been up to 7.3 oz/ton gold and 3,000 oz/ton silver (J. Hirst, 1987, pers. comm.). Unfortunately such results are not representative of the full width of the vein, the mineralization being confined to a narrow (centimetres) seam at the hangingwall contact of the quartz vein.

A further problem is the flat-lying orientation of the vein, extraction via underground mining methods will be expensive as "backs" cannot be developed, if mined via open-pit extraction then the stripping ratio will soon become prohibitive. Consequently, it will be more economically feasible to locate other "targets" rather than developing this one.

RECOMMENDATIONS AND PROGRAMME

The "feeder" vein should be traced along strike and down dip to ascertain if it has generated other, hopefully larger, massive auriferous vein situations. (To the southwest, the Lacana/Huntingdon Joint Venture has a similar "discovery"; gold mineralization within a volcanic tuff sourced by an adjacent feeder has been drill penetrated. The gold occurs with a minor silica component in micro-fractures within the less competent - relative to the augite porphyry - tuffaceous basalt.)

To trace the vein, it should be projected along strike to both the northwest and southeast and then contour soil sampled fifty metres either side of the projection line. In conjunction with this, a VLF-EM 16 survey should be done.

Once the strike extension of the feeder vein has been thus defined, trenching targets should be identified. Subject to the results of trenching, a drill programme should be considered.

PROGRAMME; PART A

Supervising Geologist (5 days @ \$450.00/day)	\$ 2,250.00
Assistant (5 days @ \$150.00/day)	750.00
Assay Costs (150 x \$10.00) 30 lines, 50 m apart, 100 m long, samples every 25 m	1,500.00
VLF rental (5 days @ \$30.00/day)	150.00
Food and accommodation (5 days @ \$50.00/day/person)	500.00
Travel (truck: 7 days @ \$75.00/day)	515.00
Report Costs	2,000.00
Management and Administration (10%)	<u>766.50</u>
TOTAL:	<u>\$ 8,431.50</u>

BIBLIOGRAPHY

Daughtry, K.L., 1980, Re: Ronald (Octagon) Property, Vernon,
B.C.

Wilmot, A.D., 1985, Report on the Vera Mineral Claims, Vernon
MD.

Livgard, E., 1986, Report on the Vera Claim Group, Vernon Mining
Division.

CANOVA RESOURCES LTD.Vernon Property ReviewSeptember 1 to 4, 1987

Expenses Incurred:

September 01	Vehicle (hire, insurance, mileage)	\$ 50.00	
	Gas	29.20	
	Food	18.00	
	Hotel	37.80	
	Telephone	<u>17.54</u>	\$152.54
September 02	Food	\$ 29.25	
	Hotel	37.80	
	Telephone	28.10	
	Truck (hire, insurance, mileage)	<u>69.85</u>	165.00
September 03	Food	\$ 27.30	
	Hotel	37.80	
	Truck (hire, insurance, mileage)	69.86	
	Gas (truck)	<u>11.76</u>	146.72
September 04	Food	\$ 11.50	
	Gas (car)	28.90	
	Vehicle (hire, insurance, mileage)	<u>50.00</u>	<u>90.40</u>
		Sub-Total:	\$554.66
		Administration and Overhead @ 10%	<u>54.46</u>
		TOTAL:	<u>\$610.12</u>

CANOVA RESOURCES - VERNON PROJECTCosts Incurred - Personnel

Travel and preparation	1/2 day
Field day	1
Field day	1
Field 1/2 day, travel 1/2 day	<u>1</u>
	3 1/2 days
Field time total @ \$450.00/day	\$1,565.00
Report preparation	<u>500.00</u>
	BILLING: <u>\$2,075.00</u>

TOTAL PROJECT BILLING: \$2,675.12

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, DAVID A. SHAW of the City of Calgary, Province of Alberta, hereby certify:

1. THAT I am a geologist residing at 3809 Point McKay Road N.W., Calgary, Alberta T3B 4V7.
2. THAT I obtained a B.Sc. (Sp. Hons.) degree in Geology from the University of Sheffield, England in 1973 and a Ph.D. in Structural Geology from Carleton University, Ottawa, Canada in 1980.
3. THAT I have been practising my profession as a geologist in Iceland, U.S.A and Canada since 1973.
4. THAT this report is based upon a review of published and printed reports and maps on the subject property and also on a 2 1/2 day visit to the Property.

Dated in Vancouver, B.C. this 14th day of February, 1988.

David A. Shaw

David A. Shaw, Ph.D.