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7/85

Ashworth  
Explorations  
Limited

GEOLOGICAL REPORT ON  
THE 1984 EXPLORATION PROGRAM  
BY FAYZ YACOB  
ON THE  
SALLY RIDE, FALCON AND NOSTROMO CLAIMS  
ALBERNI MINING DIVISION  
BRITISH COLUMBIA  
N.T.S. M 92 F/3W  
LATITUDE 49° 11'  
LONGITUDE 125° 27'

**FOR  
GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

TORHSEN ENERGY CORPORATION

**12,769**

August 20th, 1984

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INTRODUCTION

In the period July 19, 1984 to July 23, 1984 a Preliminary Exploration Program was carried out on the Sally Ride, Falcon and Nostromo property. This report was prepared at the request of Torhsen Energy Corporation.

A party of one geologist and two assistants were flown from a suitable location on the highway to the property by helicopter. Camp was set up nearby a small unnamed lake at 850 metres elevation, about fifty metres west of the western-most boundary of the claim group. Costs of this work were paid for by Torhsen Energy Corporation, 1002-475 Howe Street, Vancouver, B.C.

PROPERTY AND OWNERSHIP

The Property consists of three claims, the Sally Ride, Falcon and the Nostromo. The following table summarizes the pertinent information for these claims and Figure No. 3 accompanying this report is a reproduction of part of the B.C. Department of Mines Claim Map M92 F/3W. The economic assessment of this property lies in the commercial potential of a large copper deposit. The geological environment and proximity to nearby gold and silver occurrences also includes these precious metals as a real potential.

Claim	Record No.	No. of Units	Date Staked	Date Recorded	Expiry Date	Recorded Owner
Sally Ride	1812(7)	20	06/26/83	07/26/83	07/26/84	Torhsen Energy Corporation
Falcon	1813(7)	20	06/26/83	07/26/83	07/26/84	Torhsen Energy Corporation
Nostromo	1814(7)	20	06/26/83	07/26/83	07/26/84	Torhsen Energy Corporation

The property was staked by Clive Ashworth on July 26, 1983 and subsequently sold for 100% interest to Torhsen Energy Corporation.

### LOCATION AND ACCESS

The claims are located approximately three and one half kilometres north of Kennedy Lake, Vancouver Island. There is no road access to the claims, thus access to the property must be made by helicopter. For the purpose of the 1984 work program, equipment and supplies were taken by truck to the highway which runs from Port Alberni through to Tofino, thence by helicopter from a suitable location found off the main highway to the property. Access may also be had south of the claim block, however, steepness of terrain would not permit entry to the claims.

The claims lie within the area covered by Map Sheet 92F/3W. The coordinates of a point approximately at the centre of the claims are Lat.  $49^{\circ} 11'$ , Long.  $125^{\circ} 27'$ .

Figures 1 and 2 accompanying this report show the general location of the property and the configuration of the claims with respect to the local topography.

### PHYSIOGRAPHY AND CLIMATE

The Falcon, Sally Ride and Nostramo claims lie within the Western Coastal Forest region characterized by fairly abundant rainfall and heavy growth of larger timber. Elevations range from 200 metres to 1465 metres. The many cliffs and massive outcrops in this area make going difficult and necessitate caution.

### GEOLOGY REVIEW

J.E. Muller of the G.S.C. 1968, 1977 has described the regional geology of the area as upper triassic and older Karmutsen formation.

The Karmutsen formation is considered one of the oldest parts of the Vancouver group and is the thickest and most widespread formation of

the island (see Figure 3). Lithologically the Karmutsen formation consists mainly of pillow-basalt and pillow-breccia basalt lava and minor tuff. The attitude of Karmutsen rocks is in many instances readily seen on mountain-sides a few miles distant, but is difficult to determine in individual outcrops.

Except in contact zones with granitic intrusions the volcanics exhibit low-grade metamorphism up to prehnite-pumpellyite grade.

The age of the Karmutsen rocks is determined by upper triassic. Because the volcanics were formed on a rifting oceanic crust they are probably only in some areas underlain by the sicker group rocks.

#### GEOLOGICAL MAPPING AND SAMPLING

Geological mapping was carried out by Fayz Yacoub over the exposed part of the claim area using the topographical map as control (no exploration work has been done on the property before).

Fayz Yacoub spent five days on the property from July 19, 1984 to July 23, 1984 examining the area and carrying out the geological work. The terrain of the Sally Ride, Falcon and Nostromo claims is rugged, so that the writer and the crew couldn't examine every place in the area under consideration.

A step-like series of sheer cliffs are common everywhere in the area. Within the exposed area mineralization has been found in just a few locations. Where possible the mineralized zones were sampled and the samples were submitted to Van-Geochem Laboratories Ltd. where they were assayed for gold, silver, copper, lead, zinc and molybdenum. A total of six channel and chip samples were collected. Map 1 accompanying this report is a geological map showing the distribution of the rocks within the claim area, also showing sample location and assay plan, locations, sample numbers and assay values for the six elements assayed.

## LOCAL GEOLOGY AND MINERALIZATION

The area consists predominantly of volcanic rock, probably of the lower volcanic part of the Vancouver group (Karmutsen formation), see Geological Map No. 1 and Geological Sketch Map of Vancouver Island, Figure 1. In outcrop and hand specimens, the rocks are generally massive greenstones; grey, dark greenish to black in colour. The rocks are probably of an andesitic to metandesitic composition. Medium to coarse-grained porphyritic rocks with conspicuous black mafic phenocrysts are common as breccia fragments occur in some places in the area of the claims. The rocks are in many places sparsely disseminated with pyrite. Light grey volcanic dikes were observed in a few places in the area striking 200°.

The rocks are not strongly fractured, the most common set of fractures observed strike in a north-easterly direction. The rocks appear to be only moderately altered. Yellowish, rusty weathered surfaces were observed on some outcrops, the rusty colour is due to oxidation of pyrite sparsely disseminated in the rock.

As part of the geological mapping program a number of channel samples and rock chip samples were collected from the most interesting mineralized zones. A total of six samples were collected and plotted on the geological map accompanying this report.

Special attention was paid to float found in the area at about 250 metres southeast of the camp cabin. Large boulders of intermediate volcanic rock highly disseminated with pyrite, measured five metres by six metres. At the middle we found a zone of copper mineralization extremely disseminated with pyrite, chalcopyrite, copper staining and some native copper. Channel Sample No. 1 has been collected from the float over two metres of copper mineralization. At about 500 metres southeast of the camp cabin another showing has been found in an outcrop of altered volcanics disseminated with pyrite, chalcopyrite and copper staining concentrated at the middle of the zone. Some galena and native copper has been found within the mineralization. Channel Sample No. 2 has been taken over two metres.

Another channel sample across thirty centimetres taken from a heavily mineralized zone of altered volcanic rock disseminated with pyrite, copper staining and chalcopyrite right beside Sample No. 2, the mineralized zone strikes  $300^{\circ}$  and dips  $40^{\circ}$  southeast. A quartz-epidote calcite vein has been found within one and one half metres of a surface showing across the creek, 1750 metres northeast of the camp cabin. Channel Sample No. 6 has been collected across this vein.

### CONCLUSIONS & RECOMMENDATIONS

It is highly recommended that follow-up work be done on the mineralized zones discussed in this report, especially for the source of the large float specimen discovered at the base of a slide area. Due to the ruggedness of the terrain it would be necessary to relocate the camp position at least twice.

One geologist and one assistant would be the minimum of personnel involved and the program of mapping and sampling would be in the order of ten days.

### SELECTED BIBLIOGRAPHY

- |                   |   |
|-------------------|---|
| J.E. Muller, 1977 | Geology of Vancouver Island (east half)<br>O.F. 463, Sheet 2 of 3           |
| J.E. Muller, 1968 | Geology and Mineral Deposits of Alberni Map-Area,<br>British Columbia (92F) |

CERTIFICATE

I, Fayz F. Yacoub, do hereby certify:

1. That I am a graduate in Geology and Chemistry from Assuit University, Egypt (B.Sc. 1967), and Mining Exploration Geology from the International Institute for Aerial Survey and Earth Sciences (I.T.C.) Holland (Diploma 1978);
2. That I have practised within the geological profession for the past ten years;
3. That the information, opinions and recommendations in the attached report are based on personal observations on the Sally Ride, Falcon and Nostromo claims during the period July 19, 1984 to July 23, 1984 and from general reference materials;
4. That I own no interest in the shares or securities of Torhsen Energy Corporation, nor do I expect to receive any such interest.

*F. Yacoub*

Fayz F. Yacoub, B.Sc., I.T.C.

DATED at Vancouver, British Columbia, this 20th day of August, 1984.



**APPENDIX A**

**CERTIFICATES OF ASSAYS AND ANALYSES**

VANGEOCHEM LAB LIMITED  
1521 Pemberton Avenue  
North Vancouver B.C. V7P 2S3  
(604) 986-5211 Telex: 04-352578

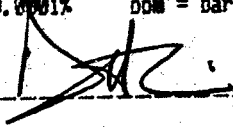
PREPARED FOR: ASHWORTH EXPLORATION LTD.  
NOTES: nd = none detected  
: -- = not analysed  
: is = insufficient sample

REPORT NUMBER: 84-01-057A JOB NUMBER: 84286

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
SAMPLE NO. 1	.07	<.005
SAMPLE NO. 2	.02	<.005
SAMPLE NO. 3	.09	<.005
SAMPLE NO. 4	.01	<.005
SAMPLE NO. 5	.03	<.005
SAMPLE NO. 6	.01	<.005

DETECTION LIMIT .01 .005  
1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001% ppm = parts per million

signed: \_\_\_\_\_  


VANGEOCHEM LAB LIMITED

1521 Pemberton Avenue  
North Vancouver B.C. V7P 2S3  
(604) 986-5211 Telex: 04-352578

PREPARED FOR: ASHWORTH EXPLORATION LTD.

NOTES: nd = none detected  
: -- = not analysed  
: is = insufficient sample

REPORT NUMBER: 84-01-057

JOB NUMBER: 84286

PAGE 1 OF 1

SAMPLE #	Cu ppm	Pb ppm	Zn ppm
SAMPLE NO. 1	7100	34	122
SAMPLE NO. 2	2830	18	76
SAMPLE NO. 3	3700	37	1560
SAMPLE NO. 4	124	40	117
SAMPLE NO. 5	30	16	41
SAMPLE NO. 6	24	32	90
DETECTION LIMIT	1	2	1

WIMBECHEM LAB LIMITED  
1521 Pemberton Avenue  
North Vancouver B.C. V7P 2S3  
(604) 986-5211 Telex: 04-352578

PREPARED FOR: ASHMORTH EXPLORATION LTD.

NOTES: nd = none detected  
: -- = not analysed  
: is = insufficient sample

REPORT NUMBER: 84-01-059

JOB NUMBER: 84334

PAGE 1 OF 1

SAMPLE #	Mo ppm
SAMPLE NO. 1	3
SAMPLE NO. 2	2
SAMPLE NO. 3	4
SAMPLE NO. 4	5
SAMPLE NO. 5	2
SAMPLE NO. 6	3
DETECTION LIMIT	1

6

APPENDIX B

STATEMENT OF EXPENDITURES

and

LIST OF PERSONNEL FOR ASSESSMENT PURPOSES

## APPENDIX B

### STATEMENT OF EXPENDITURES

The expenditures itemized below were incurred by Torhsen Energy Corporation in connection with a reconnaissance geological mapping and sampling program carried out on the Falcon, Sally Ride and Nostromo claims in the period July 19th to July 24th, 1984.

#### Field Work (July 19-24, 1984)

Mobilization, demobilization, mapping, sampling.

1 geologist - 6 days @ \$275.00/day	\$1,650.00	
1 assistant - 6 days @ \$170.00/day	1,020.00	
1 assistant - 6 days @ \$170.00/day	<u>1,020.00</u>	\$3,690.00

#### Field Crew Expenses (July 19-24, 1984)

Camp Rental - 6 days @ \$50.00/day	\$ 300.00	
Food	456.00	
Travel (ferry, gas)	176.74	932.74

#### Analyses

6 Rock Chip Samples analyzed for Cu, P6, 2n, Ag, Au, Mo.		121.00
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#### Truck Rental

6 days @ \$65.00/day		390.00
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#### Helicopter Service

Tri-Western Helicopters	1,364.00	
Long Beach Helicopters	999.16	2,363.16

#### Office Compilation

1 geologist - 4 days @ \$275.00/day	1,100.00	
Secretarial Service	<u>120.00</u>	1,220.00

Report preparation, drafting, map printing, photocopying and disbursements		<u>270.00</u>
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<u>TOTAL</u>		<u>\$8,986.90</u>
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Fayz F. Yacoub, B.Sc., I.T.C.  
ASHWORTH EXPLORATIONS LTD.

LIST OF PERSONNEL

Fayz, Yacoub, B.Sc., I.T.C.

Consulting Geologist

July 19 - 24 and July 30 - August 2  
Sampling, report preparation \$2,750.00

Grant Schorn

Assistant

July 19 - 24, 1984  
Prospecting 900.00

Robert Paeseler

Assistant

July 19 - 24, 1984  
Prospecting 900.00

TOTAL \$4,550.00














LIST OF ILLUSTRATIONS



Figure 1.

Geological sketch map of Vancouver Island.

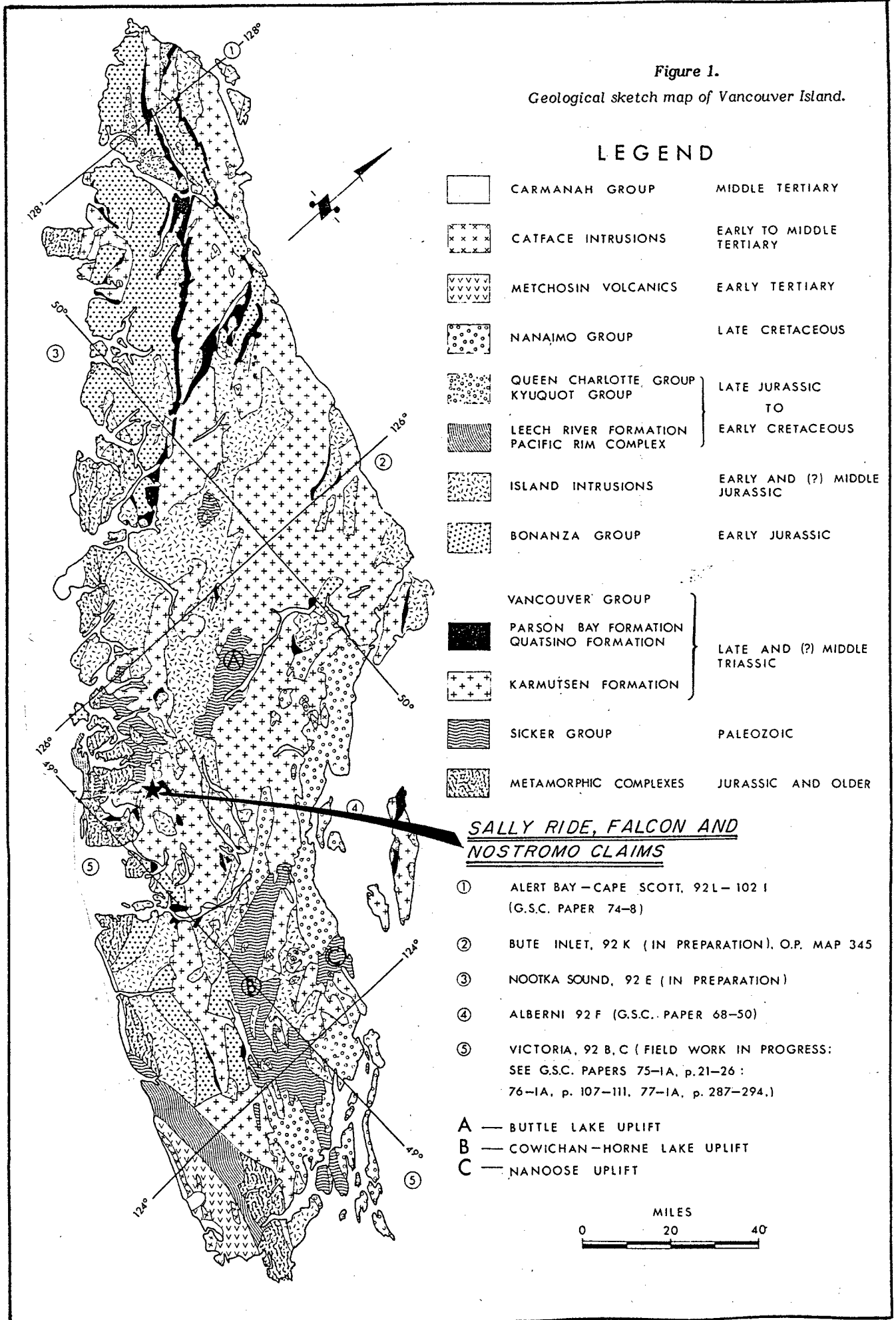
LEGEND

	CARMAHAH GROUP	MIDDLE TERTIARY
	CATFACE INTRUSIONS	EARLY TO MIDDLE TERTIARY
	METCHOSIN VOLCANICS	EARLY TERTIARY
	NANAIMO GROUP	LATE CRETACEOUS
	QUEEN CHARLOTTE GROUP KYUQUOT GROUP	LATE JURASSIC TO EARLY CRETACEOUS
	LEECH RIVER FORMATION PACIFIC RIM COMPLEX	
	ISLAND INTRUSIONS	EARLY AND (?) MIDDLE JURASSIC
	BONANZA GROUP	EARLY JURASSIC
	VANCOUVER GROUP	LATE AND (?) MIDDLE TRIASSIC
	PARSON BAY FORMATION QUATSINO FORMATION	
	KARMUTSEN FORMATION	
	SICKER GROUP	PALEOZOIC
	METAMORPHIC COMPLEXES	JURASSIC AND OLDER

SALLY RIDE, FALCON AND NOSTROMO CLAIMS

- ① ALERT BAY—CAPE SCOTT, 92 L—102 I (G.S.C. PAPER 74-8)
- ② BUTE INLET, 92 K (IN PREPARATION), O.P. MAP 345
- ③ NOOTKA SOUND, 92 E (IN PREPARATION)
- ④ ALBERNI 92 F (G.S.C. PAPER 68-50)
- ⑤ VICTORIA, 92 B, C (FIELD WORK IN PROGRESS: SEE G.S.C. PAPERS 75-1A, p. 21-26; 76-1A, p. 107-111, 77-1A, p. 287-294.)

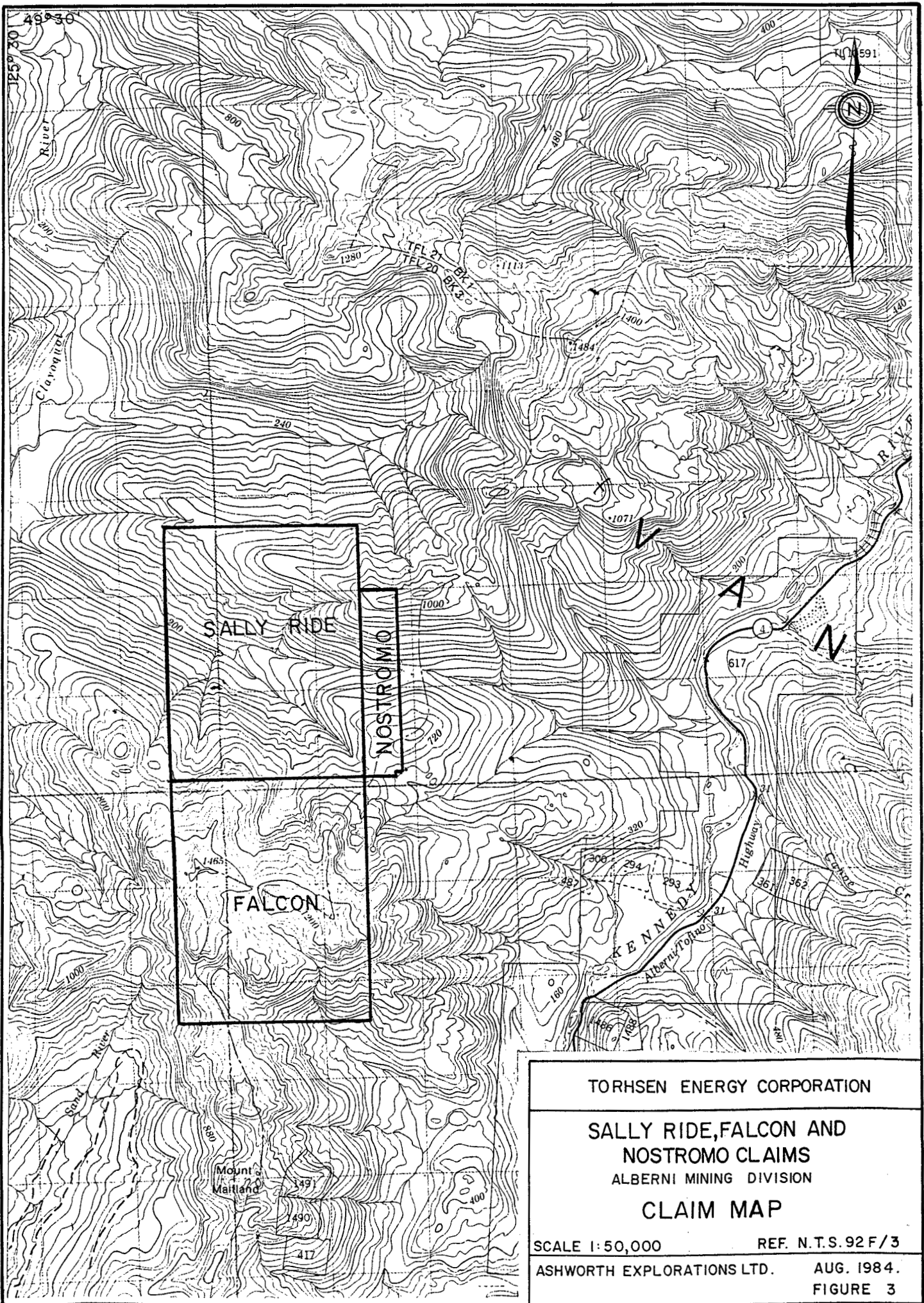
- A — BUTTLE LAKE UPLIFT
- B — COWICHAN—HORNE LAKE UPLIFT
- C — NANOOSE UPLIFT





SALLY RIDE, FALCON  
AND NOSTROMO CLAIMS

TORHSEN ENERGY CORPORATION
SALLY RIDE, FALCON AND NOSTROMO CLAIMS
ALBERNI MINING DIVISION, B.C.
GENERAL LOCATION MAP
0 100 200 300 400 500
ASHWORTH EXPLORATIONS LTD. AUG. 1984.
FIGURE 2



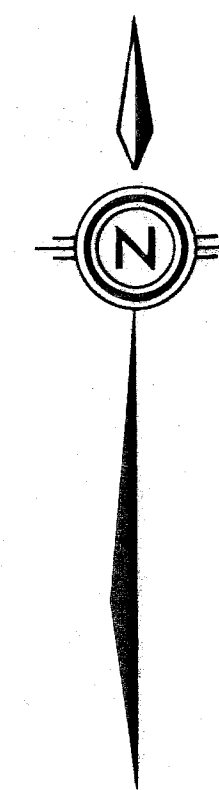
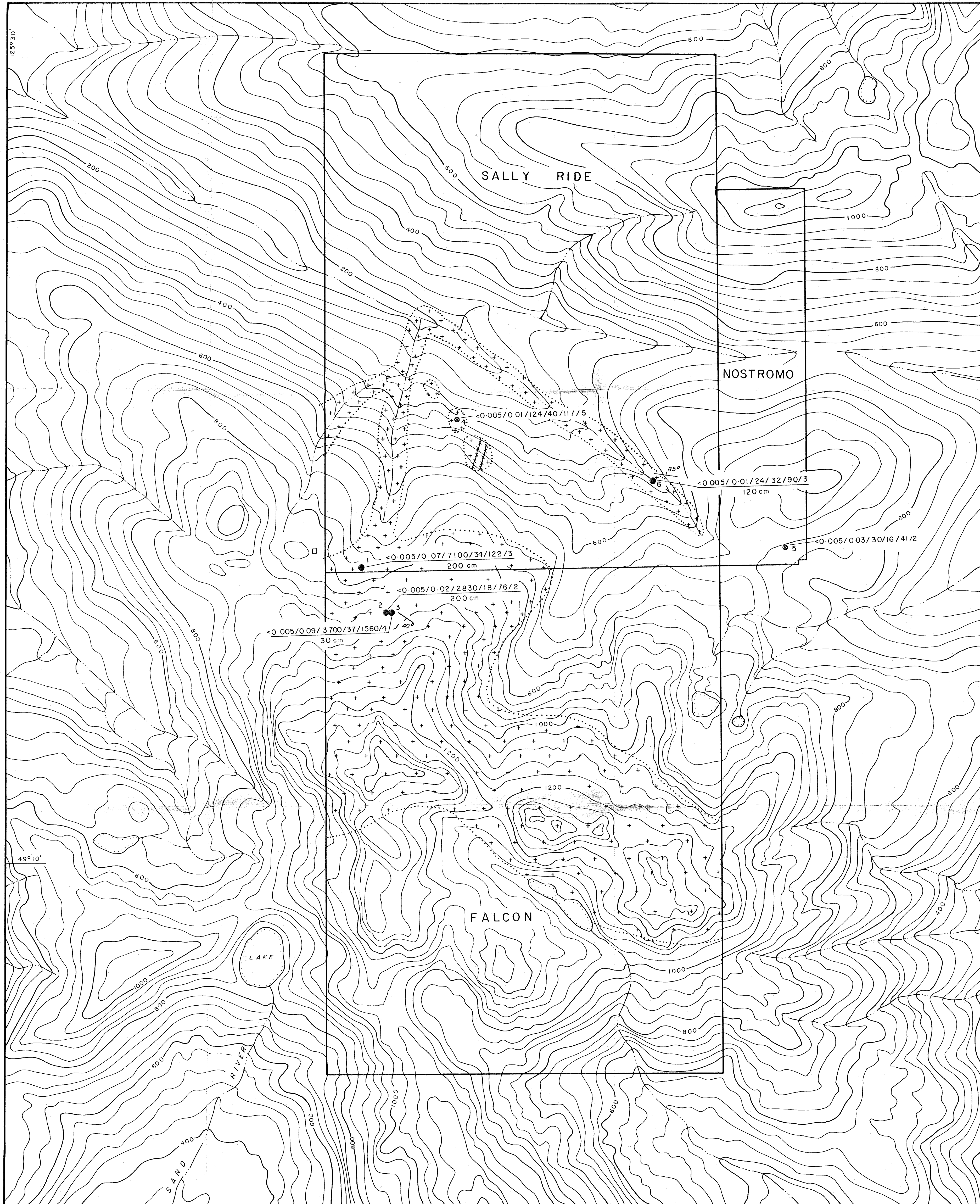
Respectfully Submitted

ASHWORTH EXPLORATIONS LTD.

*F. Yacoub*

Fayz F. Yacoub, B.Sc., I.T.C.





**LEGEND**

- KARMUTSEN FORMATION
- ACIDIC VOLCANIC DYKE
- AREA OF OUTCROP
- STRIKE AND DIP
- CLAIM BOUNDARY
- CHANNEL SAMPLE LOCATION AND NUMBER 

Au	/	Ag	/	Cu	/	Pb	/	Zn	/	Mo
oz/st.		oz/st.		ppm		ppm		ppm		ppm

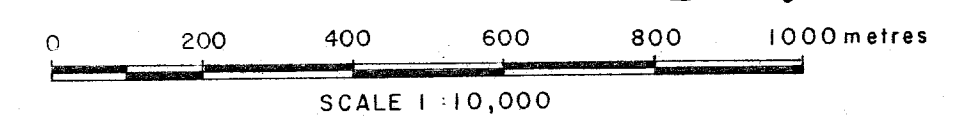
  

<0.005/0.01/24/32/90/3	120 cm
------------------------	--------
- CHIP SAMPLE LOCATION AND NUMBER 

<0.005/0.03/30/16/41/2	
------------------------	--
- CAMP CABIN
- CREEK

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

12,769



*F. Yacoub*

<b>TORHSEN ENERGY CORPORATION</b>	
<b>SALLY RIDE, FALCON AND NOSTROMO CLAIMS</b> ALBERNI MINING DIVISION, B.C.	
<b>PROPERTY GEOLOGY AND SAMPLING</b>	
ASHWORTH EXPLORATIONS LTD.	DATE: AUGUST, 1984.
FIELD WORK BY: F. YACOUB	MAP: I
DRAFTED BY: J.S.	