REPORT

ON

ARCADIA EXPLORATIONS LTD.

ANYOX, B.C.

June 1st, 1968

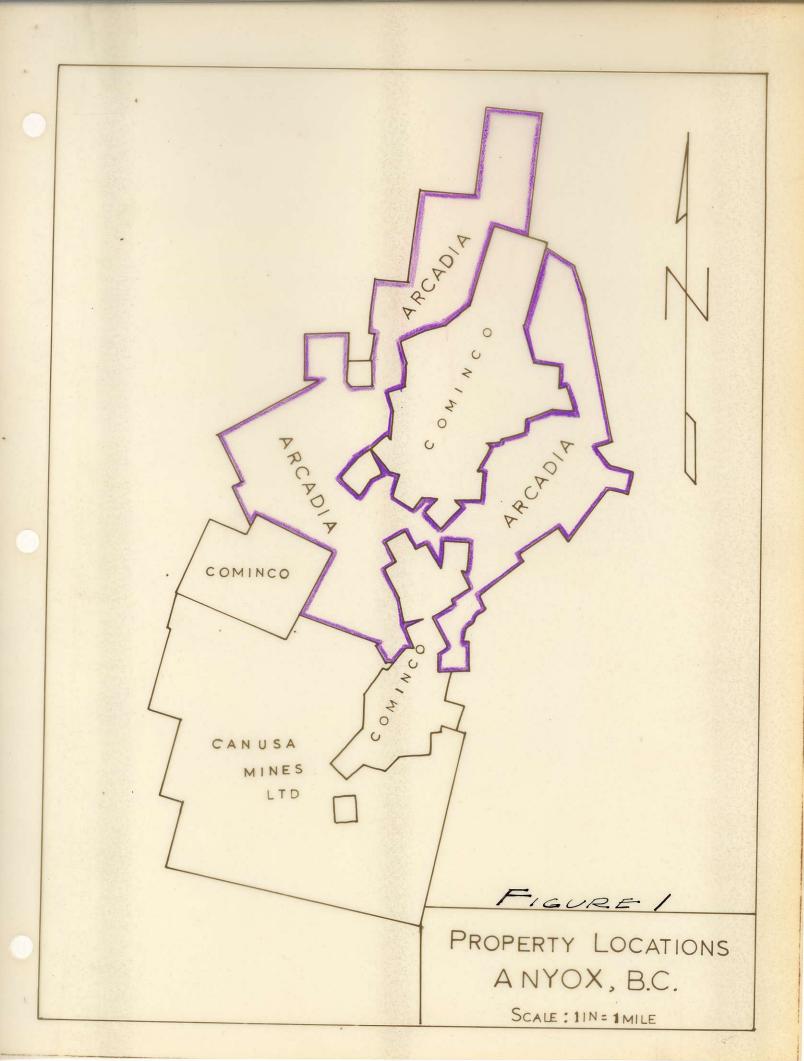
W.R. Bacon, PhD, P.Eng.

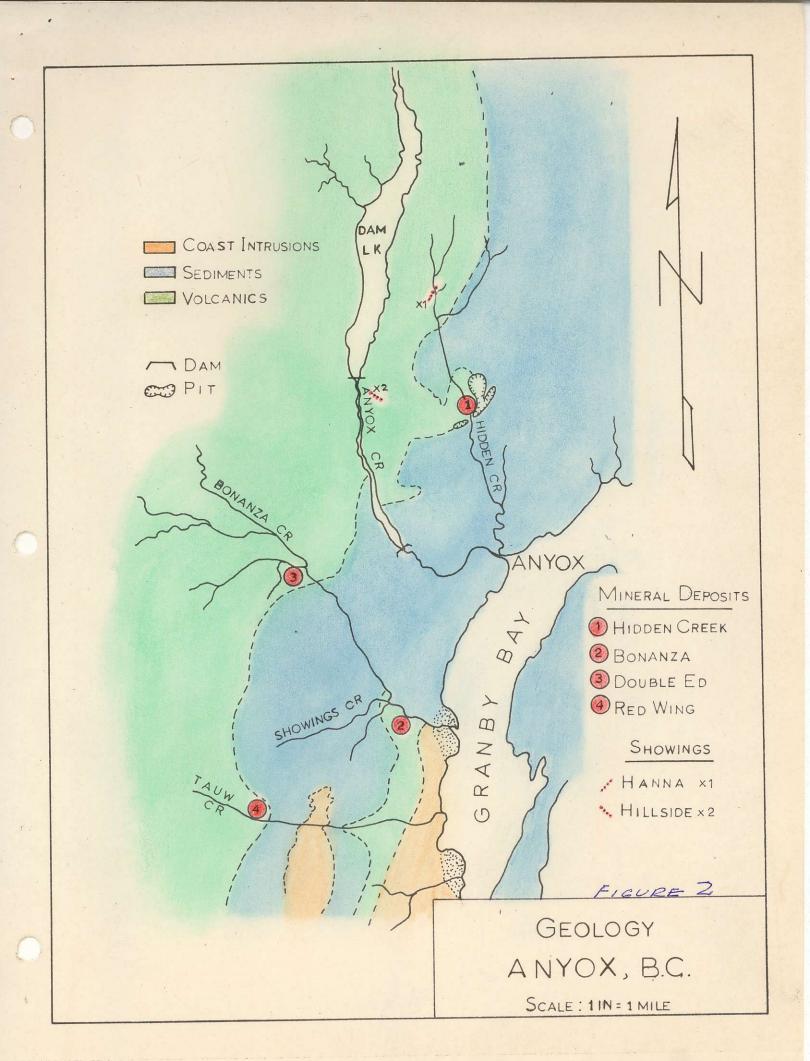
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## ILLUSTRATIONS

Pigure	1.	Property	Location	ns, Anyox,	B.C.,	養神	<b>833</b>	-	mile
Figure .	2.	Geology,	Anyon,	B.C.,		¥.99	映	100	mile





#### INTRODUCTION

The writer's field examination was undertaken May 13-14, 1968. This was to refresh a substantial first hand knowledge of the Anyox camp and to inspect specifically the ground held by Arcadia Explorations Ltd.

Adjacent properties were also examined and special attention paid such features as the known orebodies and their setting.

#### PROPERTIES AND THEIR LOCATION

The properties of Arcadia Explorations Ltd. are

100 full and fractional mineral claims held by record, and 21 Crowngranted mineral claims on which mineral leases are in effect. They

are 80 miles north of Frince Rupert, on the west shore of Observatory

Inlet in the old Anyox mining camp. The properties of Arcadia and others

are shown in Figure 1.

A detailed list of the Arcadia holdings follows:

### Mineral Claims Held by Record

		to	18	Record	Humbers	28566	to	28569	
CD	19	NA				28570			
CD	20					28571			
CD	21	FR				28572			
CD	22	to	32			28573	CO	28583	
CD	33	FR				28584			
CD	34	新数				28585			
CD	35	FR				38586			
CD	36	FR				28587			
CD	37	FR				28588			
CD	38	to	43			28589	to	28594	

## Mineral Claims Held by Record (cont'd.)

CU 1 to 10	Record	Numbers 30616	- 30625
CU 12, 14, 16		30626	- 30627 - 30628
CU 17 to 27 FR		30629	to 30639
CU 28 to 33		30640	to 30645
CU 35 FR		30646	
CU 36 FR		30647	
CU 37 FR		30648	
CU 38 to 41		30649	- 30652
CU 42 to 58 FR		31759	to 31775
CU 59 to 62		31776	- 31779
Black Fraction		32036	
George Fraction		32164	
Mick Fraction		32165	
Sunshine 1-10		31738	- 31747

# Mineral Leases

84 4	45 45% 15%
M.L.	1.57 14

Iron Cap     Honkey FR	Lake	Lot	1139
Derwin FR 1141 Lost Chord 1140 Phyllis FR 1510 No. 1 1123 No. 2 1124 No. 2 FR 1133 No. 3 1125 No. 4 FR 1134	Iron Cap		1508
Lost Chord 1140 Phyllis FR 1510 No. 1 1123 No. 2 1124 No. 2 FR 1133 No. 3 1125 No. 4 FR 1134	Honkey FR		1142
Phyllis FR 1510 No. 1 1123 No. 2 1124 No. 2 FR 1133 No. 3 1125 No. 4 FR 1134	Derwin FR		1141
No. 1 1123 No. 2 1124 No. 2 FR 1133 No. 3 1125 No. 4 FR 1134	Lost Chord		1140
No. 2 FR 1133 No. 3 1125 No. 4 FR 1134	Phyllis FR		1510
No. 2 FR 1133 No. 3 1125 No. 4 1126 No. 4 FR 1134	No. 1		1123
No. 3 1125 No. 4 FR 1134	No. 2		1124
No. 4 FR 1126	No. 2 FR		1133
No. 4 FR 1134	No. 3		1125
			1126
No. 5 1127	No. 4 FR		1134
2 TO 10 TO 1	No. 5		1127

# M.L. 113

Totes	1516
Low Pass	1515
Lone Wolfer	1527
Independence	1514

#### Mineral Leases (cont'd.)

M.L. 129

Sunrise Lot 1530 Sundog FR 3873 Ruby 1973

M.L. 196

Nellard 2225

#### ACCESSIBILITY

Anyox has all but disappeared in the thirty years since mining ceased. It is uninhabited but accessible by aircraft or boat.

The Arcadia claims are adjacent to the old Anyox mine workings now held by Cominco Ltd. They are well located and very accessible should a mine develop.

#### MI STORY

Anyox has been one of the major mining camps of British Columbia. It was operated as an integrated copper mining and smelting industry for many years until it closed permanently, through strike action, in 1936.

The Hidden Creek orebodies were mined from 1914 to 1936; from 23,948,419 tons of ore treated, there was recovered 708,891,739 pounds of copper, 6,638,088 ounces of silver, and 121,299 ounces of gold. The Bonanza mine, 3½ miles south of Hidden Creek, was operated in the years 1928-35 and; 724,193 tons of its ore yielded 31,525,588 pounds of copper, 281,244 ounces of silver, and 2,784 ounces of gold.

These properties were subsequently sold by the operators. The Granby Consolidated Mining, Smelting, and Fower Company. Limited, to Consolidated Mining and Smelting Company of Canada Limited which undertook considerable exploration at Anyox in the 1950's. This company found the Double Ed deposit and explored it from surface and underground. The work outlined a copper body of more than one million tons grading better than one per cent.

In 1966, the Red Wing mineral deposit was explored extensively by the large American copper company, Anaconda, under an option arrangement from Canusa Mines Ltd. It is reported that this work developed approximately 200,000 tons of copper-bearing rock grading about 2.5 per cent copper.

#### GEOLOGY

The geology on the accompanying 1" = 1 mile map

(Figure 2) is essentially that shown by M.E. Nelson in his 1935 paper

"The Hidden Creek Ore-Bodies". " It is correct.

Amyox occurs in a septum or roof remnant of layered rocks surrounded in plan by granitic rocks of the Coast Intrusions.

The layered rocks consist of volcanics and sediments.

The volcanics are andesites that in many places exhibit excellent pillow structures. Hassive assistes also occur, some of which are sills, and are undoubtedly responsible for the idea of "intrusive greenstone" in the vicinities of Hidden Creek and Bonanza.

<sup>\*</sup> Published in Transactions of the Canadian Institute of Mining and Metallurgy, 1935, pp. 349-357.

The sediments overlie the volcanics and consist of banded argillites and ciltatones, with minor sandstone and lenses of limestone.

The contact between volcanics and sediments is sharply defined except in a few places, as at Hidden Creek, where it is masked by silicification. Generally the contact dips eastward but not everywhere; an 2-W section through the No. 1 orebody at Hidden Creek indicates that, here, the contact dips westward near the surface.

Much could be said concerning the structures found in the layered rocks and a traverse just about anywhere in the sedisents would indicate some form of structural complexity. In this writer's opinion, however, the internal structures exhibited are not of great consequence in any new search for ore. Economically, the geologic feature of paramount importance is simply the volcanic-sedimentary contact and other considerations are secondary. All the copper mineral mined to date has come from deposits on that contact.

By the same token, it is highly unlikely that further <u>surficial</u> investigation of the contact would yield a pound of new ore. The Anyox area has been burned over thoroughly and the contact can be followed accurately and prospected carefully. This has been done.

Of secondary importance, but nevertheless of importance, are the volcanic rocks themselves. The Double Ed deposit is in the volcanics, as are the Hanna and Hillside showings of Arcadia

Explorations Ltd. These testify to the fact that copper mineralization does occur in the volcanics, many from the contact.

### CONCLUSIONS AND RECOMMENDATIONS

The potential importance of the ground held by Arcadia Explorations Ltd. Her in its proximity to the Anyon orebodies and the fact that it covers 2k miles of favourable volcanic-sedimentary contact. With regard to the Nanna and Millside showings, in each instance it is possible to trace, in intermittent outcrop, chalcopyrite (copper) mineralization for a horizontal distance of 500-800 feet. Such showings are of potential importance in the Anyon context.

The surface condition of the anyox area is significant in considering future exploration. As stated above, forest fires have denuded the area and undoubtedly the smelter operation contaminated the seil to some extent. In any event, geochemical work is not recommended.

The 2t miles of favourable contact merits investigation by geophysics and the Anyox ore is particularly responsive to
electromagnetic methods. The Turam method is recommended specifically
because of its greater penetration than other electromagnetic methods.

The Hanna and Hillside showings merit investigation by physical means, i.e. trenching and X-ray drilling.

### ESTINATED EXPLORATION COSTS

Transportation of men, drilling equipment to and from jobsite, fuel, supplies	\$4,000.00
Provision for field camp	3,000.00
Marking & cutting of 30 lines, 400 feet apart and each 2000 feet long	1,800.00
E.M. (Turam) survey - 12 miles	2,250.00
Drilling geophysical indications 6 holes - total 3000 ft. 0 \$12.50	37,500.00
Trenching and X-ray drilling of Hanna and Hillside showings	7,500,00
	56,050.00
Omissions and contingencies	\$,605.00
	\$61,655.00

Respectfully submitted,

BACON and CROWHURST

W.R. Bacon, P.Eng.

#### CERTIFICATE

I, William R. Bacon, with business address at 102 - 1111 West Georgia Street, Vancouver, 5, British Columbia, 20 HEREBY CERTIFY THAT:

- 1. I am a consulting geological engineer.
- I am a graduate of the University of British Columbia with B.A.Sc. (1939) and N.A.Sc. (1942) degrees in Geological Engineering.
- 3. I am a graduate of the University of Toronto with a PhD (1952) degree in Economic Geology.
- 4. I have practised my profession for thirty years in Canada, South America and Australia. During the past twenty years, the majority of my time has been spent in British Columbia; it includes seven years (1949-36) as geologist with the B.C. Department of Mines.

HARRISON PINE LAKE MINING C. S. I have personally examined the Anyon property of Arcadia Explora-

6. I have no interest, direct or indirect, in the property or securities of the above Company, nor do I expect to acquire any such interest.

CO. LTO.

7. I have inspected such claim posts and location lines as I encountered during my property examination. These appear to be as required by the B.C. Mineral Act. In addition, from my general knowledge of the staker, I assume that the claim locations have been made as plotted on provincial government claim maps.

Respectfully submitted,

W.R. Bacon, P. Eng.

tions Ltd.

#### TO WHOM IT MAY CONCERN:

The value of the Denman claims depends on the following factors:

- 1. They are in the centre of a major mining camp, Anyox.
- 2. They straddle 1-1/4 miles of the favourable contact zone.
- 3. Copper float has been found on the claims.

Under the circumstances, a price of \$400 per claim is quite reasonable for the Denman claims.

BACON and CROWHURST

W.R. Bacon, P.Eng.