

76-# 281 + 6855

CUNNINGHAM CREEK CLAIMS

"A" Zone Drilling

Cariboo Mining Division

N.T.S 93-A-14

R. V. Longe

September 1978

Work performed on the Park 11 CLAIM

(Record #0: 53548

(Date Recorded: 27 Aug. 1969)

Lat.  $52^{\circ} 55' N$  Long.  $121^{\circ} 22' W$

Owner: R. J. Miller

Operator: Rio Tinto Canadian Exploration Limited

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

6855

CUNNINGHAM CREEK CLAIMS  
Cariboo Mining Division  
N.T.S. 93-A-14

SUMMARY

Three holes were drilled to test the down-dip extension of lead and zinc-bearing carbonates and shales exposed in a trench on the east of First Mountain, south of Wells, B.C.

All holes were abandoned prior to reaching intended depths. No sulphides were intersected and no core was assayed.

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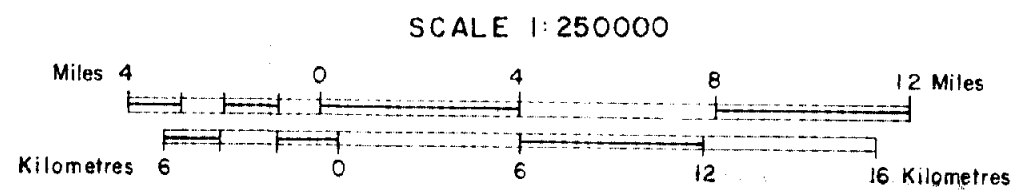
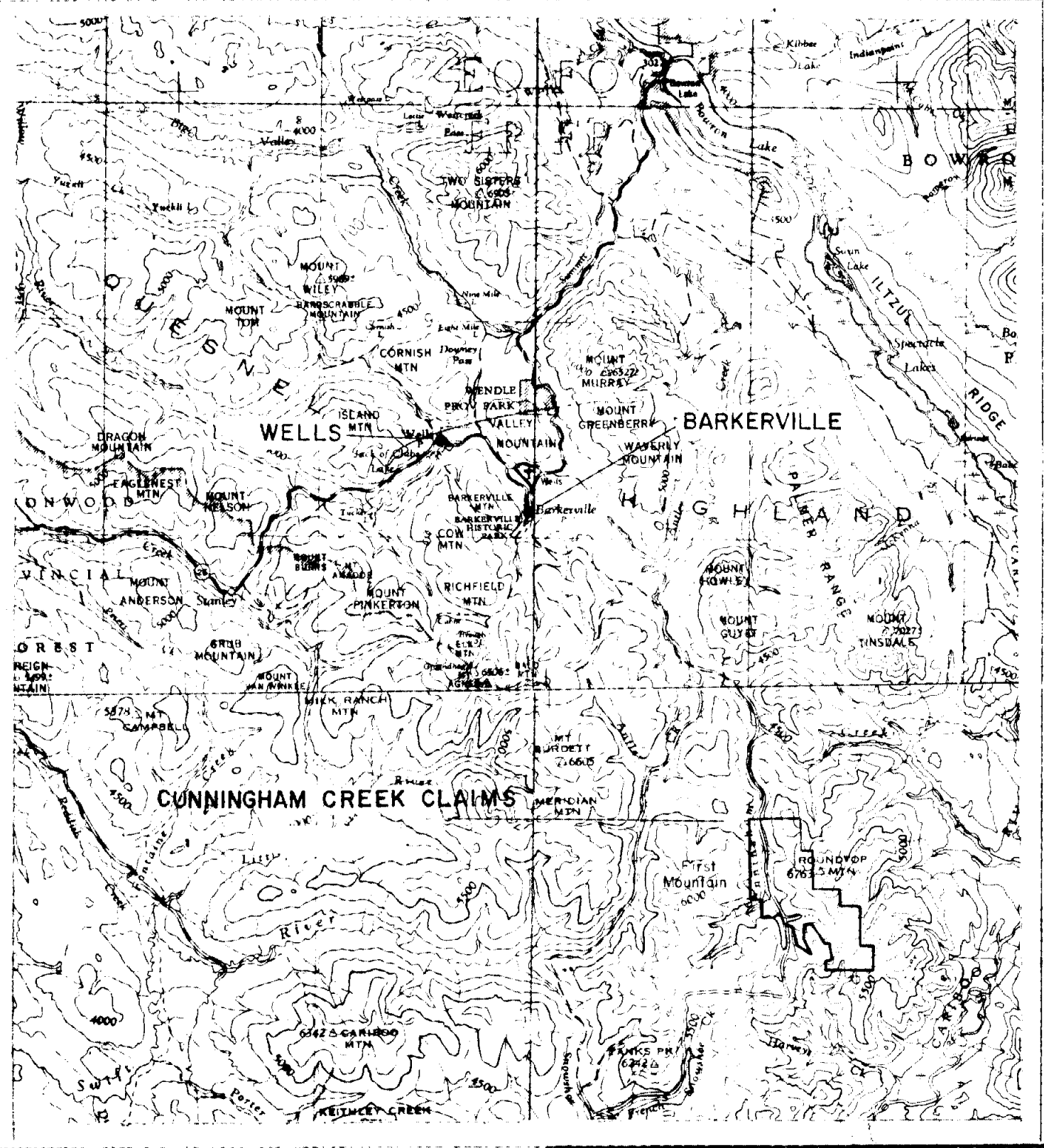
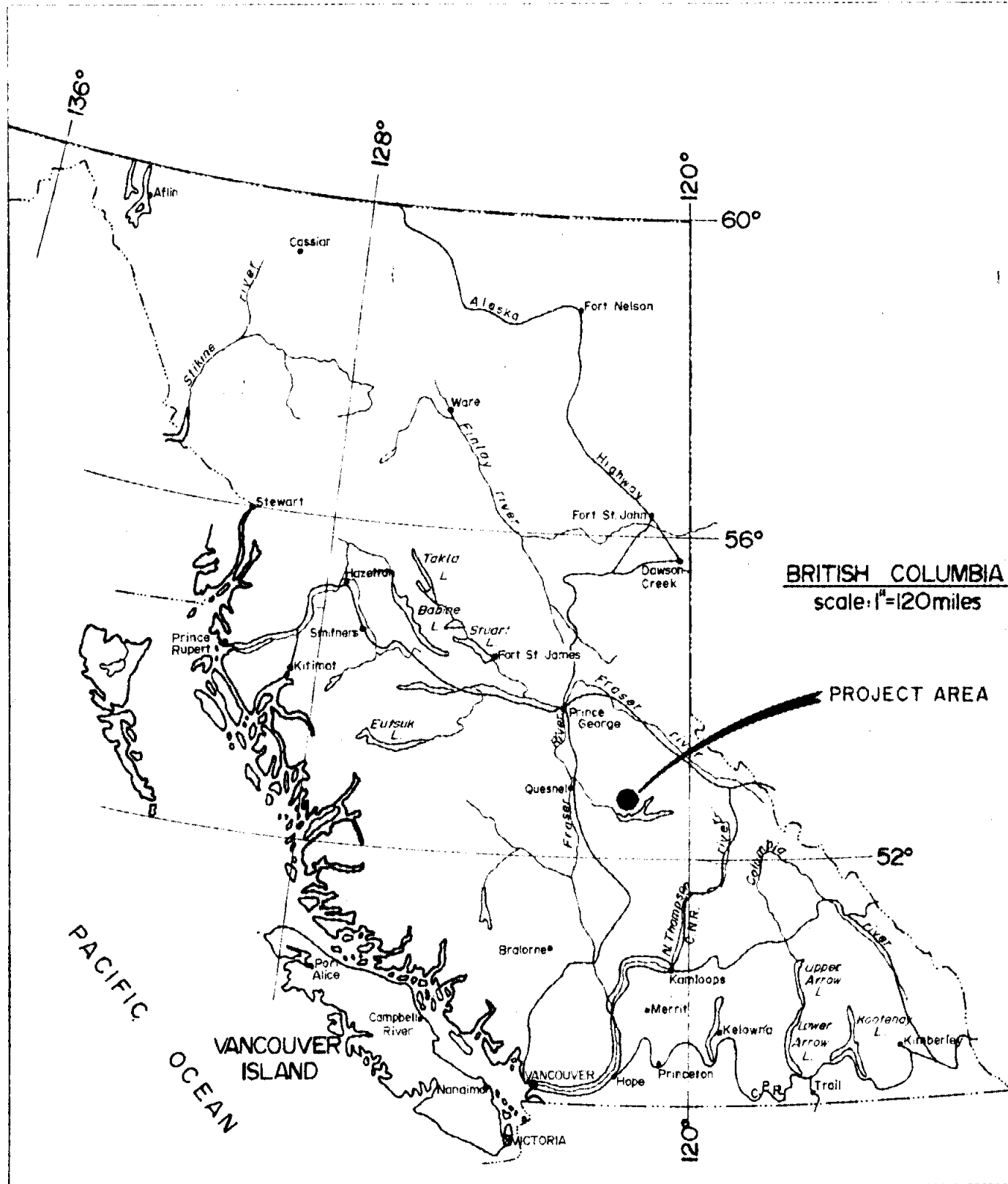
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RIO TINTO CANADIAN EXPLORATION LTD.

BARKERVILLE PROJECT

LOCATION MAP

FIGURE I

JAN. 77 R.V.L./y.m. DWG L.-6450

## 1. INTRODUCTION

In response to anomalous values of lead and zinc in silt samples in the vicinity of Roundtop and First Mountains, and to several occurrences of lead and zinc in carbonate rocks and shales, Riocanex staked claims and optioned properties astride Cunningham Creek in 1976 and 1977.

One trench, the "A1" on the east side of First Mountain yielded a 6.9 m section of carbonates and shales containing 8.39% combined lead and zinc and 2.6 ozs/ton of silver, together with small high grade pods of lead, zinc and silver, elsewhere in the trench.

The sulphide occurrences exposed in the trenches became the target of a drill programme during March and April 1978, which is the subject of this report.

Drilling was difficult because the rock was highly fractured and weathered. Three holes totalling 199 m were drilled. All holes were abandoned prior to reaching their intended depth. No significant sulphides were intersected and no core was assayed. The core remains on site.

## 2. LOCATION and ACCESS

The Cunningham Creek claims lie in central British Columbia, 80 km east of Quesnel, 150 km southeast of Prince George and 26 km southeast of Wells, (Figure 1). Access to Wells, and the restored village of Barkerville 10 km to the south, is by paved road from Quesnel. Barkerville and Roundtop Mountain are connected by a logging road and an old mining road which, when dry can be used by pickup trucks. Light planes can land on an airstrip between Wells and Barkerville. Helicopters can land in natural and artificial clearings within the Cunningham Creek claims.

NTS:

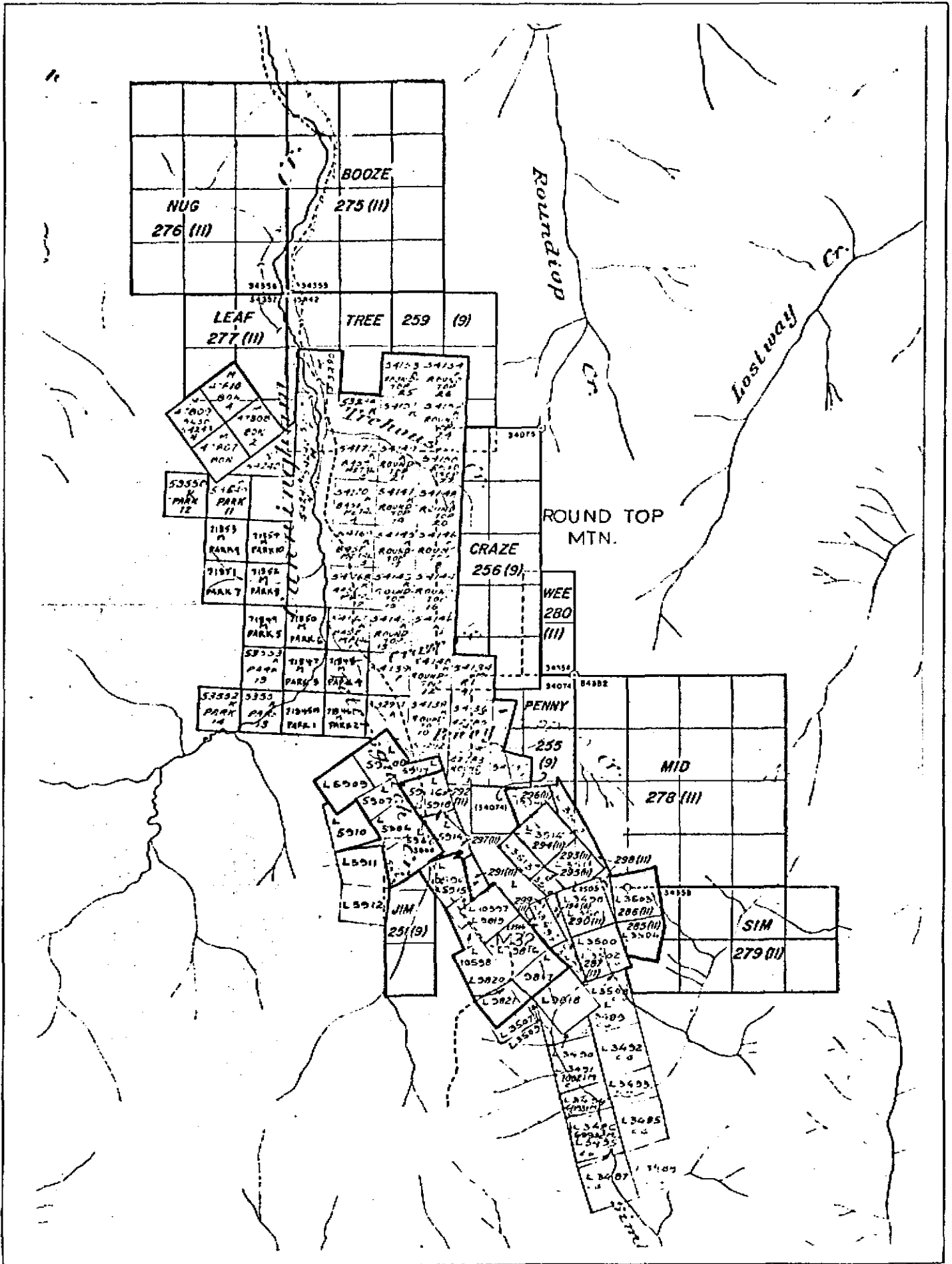
93 A 14

### 3. CLAIMS

The holes were drilled on the Park 11 claim, which, together with Park 1-10 and Park 12, was optioned by Riocanex from R. J. Miller in October 1976.

These claims form part of several blocks of claims owned and/or optioned by Riocanex and known as the "Cunningham Creek Claims."





#### 4. HISTORY AND PREVIOUS WORK

The valley between Roundtop Mountain and First Mountain has been the scene of gold mining from placer operations since 1885. Gold mining from quartz veins began in the vicinity of the Cariboo Hudson mine at the head of Peter's Gulch in 1922. Minor quantities of scheelite were also produced.

Previous exploration for base metal has been confined to work by Coast Interior Ventures Ltd., between 1971 and 1974 which included a soil survey, trenching, minor geophysics and drilling.

One of the geochemical anomalies outlined by the soil sample survey of Coast Interior Ventures was the "A" anomaly, which, when trenched, led to exposure of the lead and zinc-bearing, sulphides now referred to as the "A1" showing.

Coast Interior Ventures drilled two holes directed at extensions of the A1 showing. No logs are available. Sulphide intersections taken from an annotated sketch map are shown on Figure 3.

5. PERSONS EMPLOYED ON DRILL PROGRAMME

The drilling was carried out by W. Magnussen of Wells, B.C. on behalf of Riocanex.

N. Wilson supervised the drilling for Riocanex and logged the core.

The programme was carried out under the overall supervision of the writer.

## 6. REGIONAL GEOLOGY

Two adjacent belts, one of black shales the other of phyllites and schists, trend NNW-SSE through Wells, Barkerville and Roundtop Mountain. These two formations have been mapped by Holland (1954), and by Sutherland Brown (1957, 1963), both of the B.C. Department of Mines, and more recently by Campbell, et al, (1973), of the Geological Survey of Canada in the course of a regional programme.

The Department of Mines refers to the black shale unit as the "Midas" Formation and to the overlying (supposedly younger) phyllites and schists as the "Snowshoe." Both are placed in the Paleozoic. To the G.S.C. both formations are Proterozoic and the black shale unit (termed "Isaac") is younger than the neighbouring ("Kaza") schists.

The "A" showings, at which the drilling described in this report was directed, lie in rocks mapped as "Snowshoe" near their contact with those mapped as "Midas."

## 7. LOCAL GEOLOGY

Rocks in the A zone consist of ankeritic dolostones, chloritic schists, limestones and minor graphitic shales.

The limestones are mostly massive and unfoliated. The pronounced foliation of the schistose rocks lies parallel to lithologic units. Quartz veins are common in both foliated and unfoliated rocks.

Galena occurs as disseminations in foliated rocks, as veinlets, and as pods of massive coarse-grained crystals in association with quartz in limestones. Sphalerite is rarely seen. Scheelite occurs in patches and veinlets.

Both lithology and foliation strike at approximately  $150^{\circ}$  and dip at  $45^{\circ}$  -  $60^{\circ}$  to the west. Lithologic units cannot usually be traced for more than 50 m. Lithologic discontinuities can be readily attributed to shearing in the plane of foliation.

## 8. RESULTS OF DRILL PROGRAMME

(Drill logs are in Appendix 1)

### DDH 78-1

This hole was abandoned at 49 metres because of caving and sanding.

Projected depth of sulphides was 72 metres.

Rocks intersected were schists, partly calcereous, locally containing pyrite and/or talc. Several quartz veins were intersected. Pyrite was mostly oxidized.

### 78-1A

The hole was drilled from the same location as 78-1 but with a  $10^{\circ}$  steeper dip (minus  $70^{\circ}$ ) and with an azimuth differing by  $10^{\circ}$ . ( $50^{\circ}$ ).

This hole was abandoned when the core barrel broke off causing the bit and shell to be left in the hole.

Rocks intersected were schists, with quartz and ankerite, locally calcereous.

### DDH 78-2

This hole reached a depth of 82.4 m having penetrated schists containing quartz, chlorite and ankerite. A minor amount of limestone was also intersected.

Despite penetrating beyond the projected depth of the sulphides exposed in the trench, no sulphides were intersected and the rocks drilled could not be matched with those in the trench.

## 9. CONCLUSIONS

The absence of sulphides in DDH 78-2 suggests the presence of a fault between the trench exposure and the drill hole.

Drill holes 78-1 and 78-1A did not reach the projected depth of sulphides.

10. RECOMMENDATIONS

That trenches in the vicinity of the A zone be re-opened by bulldozer, that new trenches be dug and that the sulphide bearing zones be systematically chip sampled.

(At the time of writing this recommendation is being carried out).

*R. V. Longe*

VANCOUVER OFFICE  
September 1978

R. V. Longe



## STATEMENT OF QUALIFICATIONS

R. V. Longe

### ACADEMIC

- 1961 B.A. Natural Sciences Tripos, Cambridge University  
(Geological Sciences)
- 1965 M.Sc. Geology McGill University

### PRACTICAL

- 1969-present Rio Tinto Canadian Exploration Ltd. Vancouver BC  
Geologist involved in various aspects of mineral exploration in B.C., Yukon, and Alaska.
- 1967  
(summer) Amax Exploration  
Geological mapping of Guichon Batholith, B. C.
- 1965-1966  
(summers) Selco Exploration Ltd.,  
Geological Mapping of Archean Greenstone belt south of James Bay, Ontario
- 1964 West African Selection Trust  
Diamond exploration in Ivory Coast and Mali, West Africa
- 1962-1963 Consolidated African Selection Trust Ltd.,  
Mine Geologist,  
Akwatia, Ghana
- 1961 Serra Leone Selection Trust Ltd.,  
Geologist, reserve development department  
Yangema Mine, Sierra Leone

STATEMENT OF QUALIFICATIONS:

Norma Joan Wilson (nee Pawlowski)

Education:

BSc. (Biology) 1974 University of British Columbia

BSc. (Geology) 1976 University of British Columbia

Experience:

1976 and 1977 Seasonal Employment with Rio Tinto  
Canadian Exploration Limited

- Mapping and geochemical sampling,  
south and central B.C.

1975 - Cominco Limited (temporary)

- Logging core and mapping on the  
Bathurst Norsemines property, N.W.T.

COST STATEMENT  
 CUNNINGHAM CREEK CLAIMS (PARK 11)  
 DIAMOND DRILLING  
 February 9th Through April 4th, 1978

DIAMOND DRILLING

SALARIES & WAGES

N. G. WILSON, 14 Feb.- 7 Apr 78, 50 Days

R. V. LONGE, 9 Feb.- 7 Apr 78 4 Days

54 Days @ \$49/Day \$ 2,660

EMPLOYEE BENEFITS @ 25% of Salaries & Wages 665

RIOCANEX CAMP EQUIPMENT 54 Days @ \$ 3/Day 162

FOOD & ACCOMMODATION 54 Days @ \$15/Day 786

CAMP CONSTRUCTION 200

SUPPLIES 43

TRANSPORTATION 370

DIAMOND DRILLING 212 M @ \$87/M 18,149

REPORT PREPARATION 500 \$23,535

*199.5 @ 87 = 17,357  
acc. to 055*

PHYSICAL

ROAD MAINTENANCE

Snow Removal, D7F CAT., 54 Hrs. @ \$43/Hr. \$ 2,322

Demobilization, Low Bed, 3 Hrs. @ \$35/Hr. 105

TOTAL \$25,962

*18,149  
17,357  
792*

*2  
25,170  
approved.  
EUG Oct 11/78*



RIO TINTO CANADIAN EXPLORATION LIMITED  
DIAMOND DRILL RECORD

HOLE No: 78-1

PAGE No: 2

Metres		DESCRIPTION	SAMPLE No	Metres		LENGTH							
from	to			from	to								
		(17%). Locally calcareous. Occasional barren white quartz veins. Thickness and orientations impossible to determine due to broken nature of core. Some rustiness may be due to ankerite.											
38.5	49	Quartz-talc schist. Pale grey, sometimes rusty, medium grained schist. Foliation of chlorite and talc is 90° to 30° to vertical core axis. Some pyrite rich bands have sharp contacts with grey schist and have orientations 80° to 90° to vertical core axis. Some bands are irregular with diffuse contacts. Quartz veins: 13 cms wide at 42 m 20 cms wide at 43 m Quartz veins are rusty. Calcareous section 48.6-49 m.											
49		End of Hole. Casing pulled  Hole abandoned due to caving and sanding.											





RIO TINTO CANADIAN EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE No: 78-2  
PAGE No: 2

Metres		DESCRIPTION	SAMPLE No	Metres		LENGTH						
from	to			from	to							
32.7	40.3	Limestone Pale grey to dark brown muddy limestone Occasional specks of fresh pyrite. Foliation is 25°-35° to v.c.a. Some hematite pseudomorphs.										
40.3	42.7	Quartz-chlorite schist. Pale grey medium grained quartz schist. Chlorite increases towards bottom. Some fresh pyrite, some rusted sections and some cubic vugs. Some rusty parts may be due to ankerite calcareous										
42.7	46.3	Chlorite schist. Black foliated rock, primarily chlorite. Some weathered pyrite. Foliation is erratic.										
46.3	64.2	Quartz-ankerite schist. Pale grey to rusty brown, medium grained quartz, chlorite, ankerite schist. Only slightly calcareous.										
		47.2-48.4m barren quartz vein										
		50.6-51m barren quartz vein										
		53.6-54m chlorite schist as 42.7-46.3m										
		Foliation not well defined. Varies from 50° to 30° to v.c.a. Some talc on broken surfaces										
54.2	82.4	Calcareous Schist Pale grey to rusty calcareous schist.										



RIO TINTO CANADIAN EXPLORATION LIMITED

DIAMOND DRILL RECORD

HOLE NO: 78-2

PAGE NO: 3

Metres		DESCRIPTION	SAMPLE NO	Metres		LENGTH								
from	to			from	to									
		More rusty and calcareous than above unit, but otherwise similar. Foliation is 30° - 35° to v.c.a.												
82.4		End of hole. Hole abandoned - rods stuck.												



DRILL HOLES  
MARCH & APRIL 1978

6855

LEGEND

— Observed position of flagged lines  
 - - - Interpolated position of flagged lines

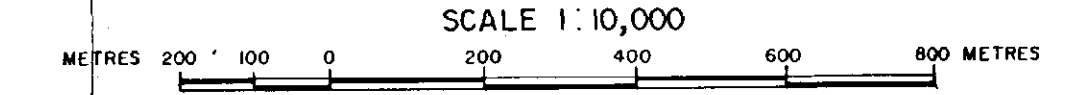
N.B. Positions of lines represent best estimates determined by plotting from enlarged air photographs. Error due to photographic distortion may have been incorporated.

CLAIMS HELD BY RIOCANEX

— Directly  
 - - - By option from Coast Interior Ventures Ltd.  
 — By option from B. Miller  
 - - - By option from W. J. Thomson  
 — Internal claim boundary

N.T.S. 93A14

SCALE 1:10,000



RIO TINTO CANADIAN EXPLORATION LIMITED

CUNNINGHAM CREEK CLAIMS ①

CLAIMS OWNED OR OPTIONED  
BY RIOCANEX OCTOBER 1977

R.L./a.b. REVISED MAY 78 JWG G-8464