

R E P O R T

Q.N

HITCHHIKER & P.Y. CLAIM GROUPS

WATSON LAKE MINING DISTRICT

105-H

YUKON TERRITORY

for

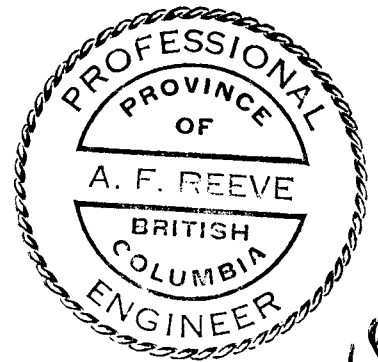
TELKWA MINING COMPANY LTD.

by

Albert F. Reeve, P.Eng.,
Geological Engineer

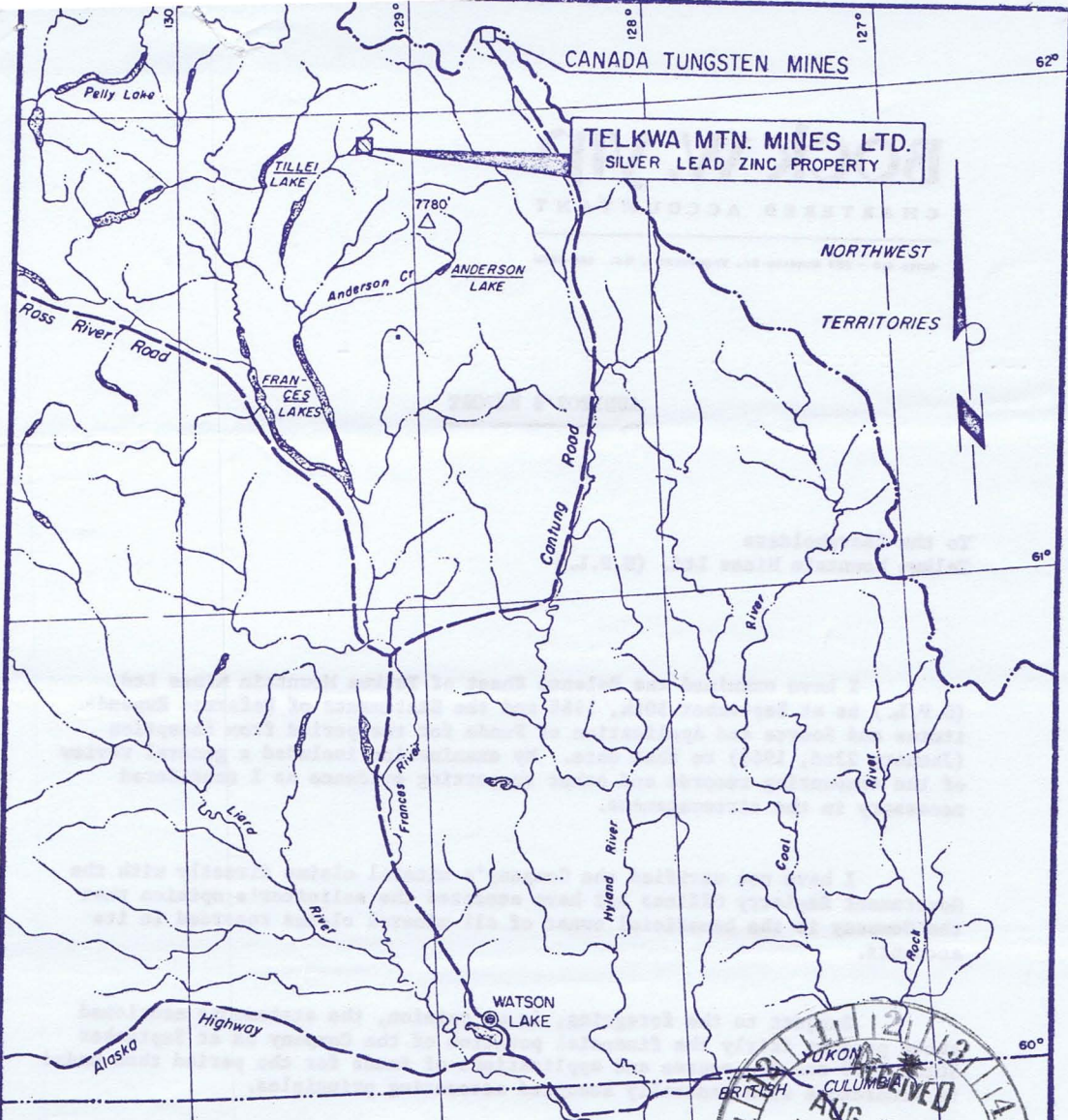
CORDILLERAN EXPLORATION CORPORATION LTD.

June 25, 1967



August 21, 1968
A. F. Reeve

91689



TELKWA MOUNTAIN MINES LTD.
LOCATION MAP

HITCH-HIKER Ag Pb Zn PROPERTY

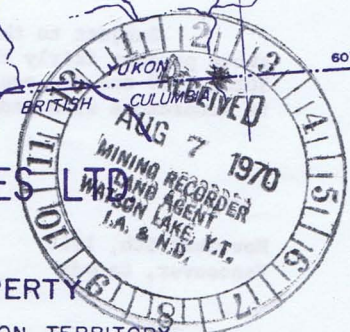
FRANCES LAKE AREA

YUKON TERRITORY

JUNE, 1967



BY
CORDILLERAN ENGINEERING LIMITED
 400 - 837 W. HASTINGS ST. VANCOUVER I, B.C.



INTRODUCTION

This report has been written for Telkwa Mining Company Ltd. at the request of Mr. Edward Greer. It describes the mineral exploration potential of the Hitchhiker and P.Y. claim group and adjacent areas. It is based on a personal field examination on July 13, 1965.

Additionally, the results of an air borne geophysical survey by Waterton Aeronautics & Explorations Ltd. (September, 1966), and the writer's knowledge of the region in general, have been incorporated into this report.

Two sketches and the writer's certificate of qualification are included in the Appendix.

PROPERTY

<u>Claim Name</u>	<u>Grant No.</u>	<u>Recorded Owner</u>				<u>Expiry Date</u>		
P.Y. #1	Y-13649	Pat	Crean	of	Vancouver	Aug.	29,	1967
P.Y. #2	50	"	"	"	"	"	"	"
P.Y. #4	51	"	"	"	"	"	"	"
P.Y. #6	52	"	"	"	"	"	"	"
P.Y. #8	53	"	"	"	"	"	"	"
<hr/>								
P.Y. #9	Y-13654	"	"	"	"	"	"	"
P.Y. #10	55	"	"	"	"	"	"	"
P.Y. #11	56	"	"	"	"	"	"	"
<hr/>								
P.Y. #12	Y-13657	E.	Greer	"	"	"	"	"
#13	58	"	"	"	"	"	"	"
#14	59	"	"	"	"	"	"	"
#15	60	"	"	"	"	"	"	"
#16	61	"	"	"	"	"	"	"
<hr/>								
Hitchhiker #3	89230	"	"	"	"	Aug.	4,	1967
#5	32	"	"	"	"	"	"	"
#7	34	"	"	"	"	"	"	"

This information was obtained from documents supplied by the owners who represent that they hold the property on behalf of Telkwa Mining Company Ltd.

LOCATION (see fig. 1)

Approx. 129° 05' W. longitude

61° 55' N. latitude

Frances Lake Area (NTS Index #105H)

Yukon Territory.

The property is located on rugged
E - W trending rock ridge, 25 miles west of the
Canada Tungsten access road and 12 miles N. E. of
Tillei Lake.

ACCESS

The most practical method of access
at the present time is 150 miles by road from Watson
Lake to Mile 81 on the Cantung Road; and from there
25 miles W.S.W. to the property by helicopter.

BACKGROUND

Galena, zinc, silver and chalcopyrite mineralization was discovered in this area in 1962 by Edward Greer while employed by Giant Yellowknife Mines Ltd. At the time, this company was doing regional prospecting from a base on Frances Lake. Company geologist, Dr. Hugh Square, examined the showings and 48 claims called the "Vancouver" group were staked later in the season. The ground was then allowed to lapse without any further work being done.

In August 1965, Greer staked 16 claims called the "Hitchhiker" group, and the writer examined the mineral occurrences on behalf of Norquest prospecting syndicate.

An airborne geophysical survey was carried out in September, 1966, by Waterton Aeronautical Exploration Ltd. on behalf of the present owners, Greer & Pat Crean.

GEOLOGY

Regional (See fig. 1)

The Hitchhiker and P.Y. mineral claims lie in a N.W. trending belt of late Precambrian sedimentary and metasedimentary rocks. These are extensively intruded by batholithic masses of intermediate composition estimated to be of cretaceous age.

Deposits of lead and zinc sulphides occur in the sedimentary rocks. Copper and silver are generally minor associates of lead and zinc. Tungsten (scheelite) occurs frequently in the sedimentary rocks as well. These deposits are usually strataform, controlled by beds of limestone and skarn.

Local

The claim group lies on the steep and very rugged south-facing slope of an east-trending ridge. The hillside is occupied by a sequence of thickly-bedded limestone, carbonaceous shales and graphitic schists. These rocks trend approximately eastwest, and dip steeply to moderately northward. They appear to be the north limb of an anticline which plunges eastward. Locally, the limestone has been altered to banded chert and skarn. Observed from the air the thick grey lime beds stand out in sharp

GEOLOGY (cont'd.)

Local (cont'd.)

relief to the brightly rusted carbonaceous rocks.

This sedimentary sequence is intruded by a granite stock (5 miles x 1/2 mile) which is elongated in the eastwest direction and occupies the north flank of the ridge. The granite is gneissic and locally mafic poor. The gneissosity dips steeply and trends in the elongate direction of the stock.

MINERALIZATION (See fig. 2)

At least 3 occurrences of lead-zinc mineralization were observed in an area approximately one mile in length. Broadly, it appears to be controlled by a thick bed of altered limestones. Locally, within this horizon, sulphide replacement veins and lenses are controlled by a system of fractures which cut the host rock in several directions. Some of the fractures seem to be concordant, while others branch and cross-cut the rock structure almost perpendicularly.

Sulphide bearing veins range in thickness from a few inches to a maximum of 5 feet and were observed along strike for a few tens of feet or less. An irregular sulphide mass about 30 feet in diameter was seen at the junction of several fracture veins. Sub-massive galena and sphalerite is generally accompanied by quartz, calcite, pyrrhotite and minor chalcopyrite. Six mineralized locations were sampled by the writer. Assay results are shown on figure 2. It is notable that silver values are higher in this locality than in most other Pb - Zn showings in the region.

The area examined appears to be a small part of larger belt of apparently favourable rocks which have not yet been prospected in detail.

ALBORNE GEOPHYSICAL SURVEY

Approximately 100 line miles of air traverses were flown in an area 2 miles x 5 miles (see fig.2). The traverses were flown at 110° az. maintaining very approximate constant ground clearance. Magnetic, electromagnetic and radiation data were recorded. The equipment consists of a DR-2-29 Delection scintilometer, PMF-3 Sharpe flux-gate magnetometer, and a custom EM system operating at 1000 cps. all mounted in a single engined aircraft. Navigation control is visual and records are taken by photographing the instrument meters and regular intervals.

RESULTS OF GEOPHYSICAL SURVEY

The survey data may be considered very approximate and preliminary because of difficult terrain conditions. Two prospecting targets of uncertain quality are suggested (see fig. 2). They are coincident and positive magnetic, EM and radiation count results.

- a) At the east end of the survey area this type of result appears to be related to the outcrop of an intrusive stock.

- b) In the NW corner of the area a similar geophysical feature occurs, apparently unrelated to the geology as it is presently known.

SUMMARY & CONCLUSIONS

1. The Hitchhiker & P.Y. claim group is in the northern Frances Lake area of the Yukon Territory. It is located in a belt of Precambrian sedimentary rocks which enclose a significant number of strata-bound zinc-lead and tungsten deposits associated with limestone and skarn beds.

2. A number of thick limestone beds, adjacent to an intrusive mass, occur on the property. Lead-zinc-silver mineralization consisting of isolated narrow veins and small replacement masses was observed at more than eight locations in a limestone bed for a distance of 1 mile along the strike. None of these showings appear to be very important as individuals; however, their frequency of occurrence suggests that the local limestone beds are a favourable prospecting environment.

3. An airborne geophysical survey consisting of magnetic electromagnetic and radiation count observations was made in a 10 square mile area surrounding the Hitchhiker and P.Y. property. The data from this survey is very approximate because the very rugged terrain prevented accurate control of ground clearance and

SUMMARY & CONCLUSIONS (cont'd.)

obtuse sectioning of the geological trend. However, the results suggest at least two target areas which should be investigated on the ground by prospecting.

4. A preliminary exploration programme consisting of prospecting and geological reconnaissance is justified to investigate areas adjacent to the Hitchhiker & P.Y. group for additional Pb-Zn-Ag mineralization and to check the possible targets indicated by airborne geophysical work.

RECOMMENDATIONS

The following success contingent exploration programme is suggested.

Phase I

1. Acquire an additional 48 claims to the west and south of the present group so that the entire south flank of the ridge is protected.
2. Prospect and do reconnaissance geological mapping and geochemical sampling in the 10 square mile area which includes the expanded property and the two geophysical features discussed previously.

Phase II

Contingent upon the success of Phase I it may be necessary to acquire additional claims and do detailed geological, ground geophysical, geochemical surveys, trenching and rock sampling.



Respectfully submitted,

A handwritten signature in dark ink, appearing to read "A. F. Reeve".

Albert F. Reeve, P.Eng.,
Geological Engineer,
CORDILLERAN EXPLORATION CORPORATION LTD.

A P P E N D I X "A"

ESTIMATED COST OF

RECOMMENDED EXPLORATION PROGRAM

ESTIMATED COST OF RECOMMENDED PROGRAMMEPhase I

1) Salaries & Fees

Geology crew (geologist & assistant)		
20 days @ \$85	\$ 1,700.00	
Consulting fees	1,000.00	
Prospector, 1 mo. @ \$650	650.00	
Prospector's assistant		
1 mo. @ \$500	500.00	
Additional staker		
4 days @ \$35	140.00	
Employee benefits	<u>150.00</u>	\$ 4,140.00

2) Transportation

Vancouver - Watson Lake (air) . . .	\$ 1,000.00	
Watson Lake - Mile 81 Cantung Rd.		
(truck) . . .	1,000.00	
(personnel, aircraft fuel & supplies)		
Helicopter including ferry time from		
Watson Lake. 40 hrs. @ \$125 . . .	<u>5,000.00</u>	7,000.00

3) Equipment & Supplies

Camp equipment	\$ 1,000.00	
Food supplies	900.00	
Fuel and miscellaneous	<u>400.00</u>	<u>2,300.00</u>

Carried forward: \$ 13,440.00

Brought forward: \$ 13,440.00

4) Other

Staking licences & recording fees	\$ 600.00	
Assays & geochemical analyses . .	500.00	
Hotel meals & incidental travelling expenses	<u>1,000.00</u>	<u>2,100.00</u>
		<u>\$ 15,540.00</u>

Rounded Total \$ 15,500.00

Contingency allowance 1,500.00

Total Estimated Cost of Phase I \$ 17,000.00

Phase II (contingent upon the success of Phase I)

Detailed geological, geophysical and geo-chemical surveys and trenching in selected areas, supported by helicopter, would cost at least		<u>13,000.00</u>
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Total Estimated Cost of Recommended Exploration Programme		<u>\$ 50,000.00</u>
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NOTE:

THESE ESTIMATES DO NOT INCLUDE COMMISSIONS FOR FINANCING.

ADMINISTRATION OF THE COMPANY'S EXECUTIVE OFFICE, OR

INCORPORATION EXPENSES.

A P P E N D I X "B"

ATTORNEY'S CERTIFICATE

CORDEX

CORDILLERAN EXPLORATION CORPORATION LTD.

400-837 WEST HASTINGS STREET

VANCOUVER 1, B.C.

TELEPHONE: 685-0167

ALBERT F. REEVE, P.ENG.
JOHN W. STOLLERY, P.ENG.
GEOLOGICAL ENGINEERS

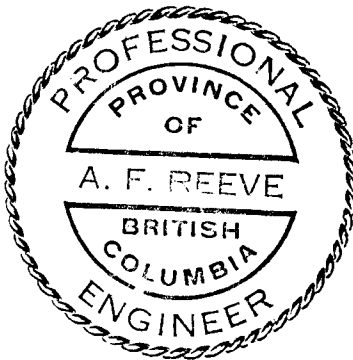
MINING EXPLORATION MANAGEMENT
AND ENGINEERING
SERVICES

- ASSOCIATES -
BONDAR-CLEGG & COMPANY LTD.
GEOCHEMISTS

CERTIFICATE

I, ALBERT F. REEVE, of Vancouver, B.C. hereby certify
that:

1. I am a geological engineer residing at #4 - 2475 West 1st Avenue, with an office at 400, 837 W. Hastings St.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario, 1958; and received a Bachelor of Science degree from Michigan College of Mining and Technology, Houghton, Michigan, 1961.
3. I am a certified member of the associations of Professional Engineers in the provinces of Ontario and British Columbia.
4. I am the author of this report which is based on my examination of the Hitchhiker property and general experience in the Frances Lake region.
5. I have no beneficial interest in Telkwa Mining Company Ltd. nor in the properties described in this report, nor do I expect to receive any.



Signed

A handwritten signature in black ink, appearing to read "A. F. Reeve".

Albert F. Reeve, P.Eng.,
Geological Engineer

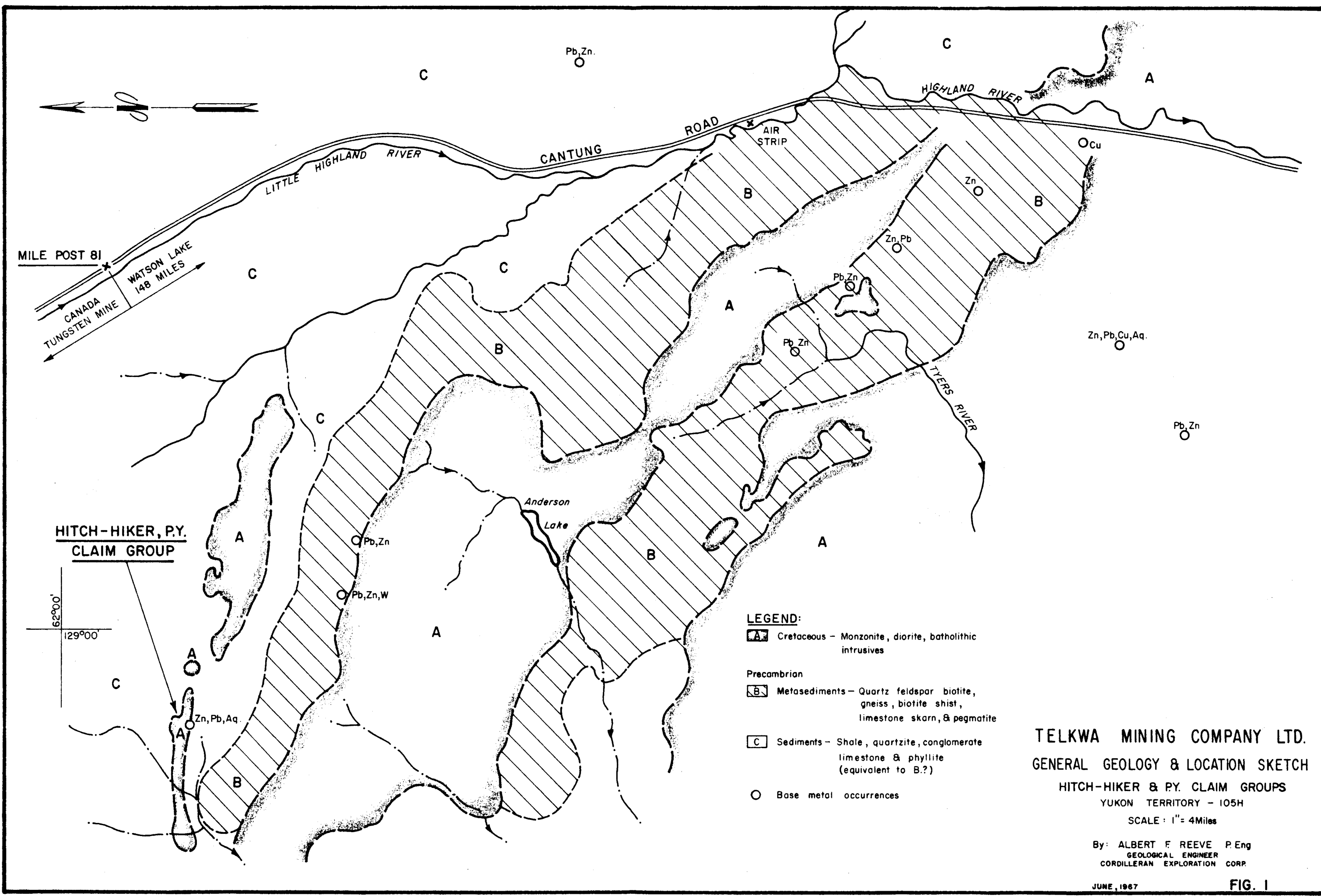
CORDILLERAN EXPLORATION CORPORATION LTD.

Aug 21, 1968.

June 25, 1967
Vancouver, B.C.

APPENDIX "C"

MAPS



MILE POST 81
 CANADA TUNGSTEN MINE
 WATSON LAKE 148 MILES

**HITCH-HIKER, P.Y.
 CLAIM GROUP**

62°00'
 129°00'

LEGEND:

A Cretaceous - Monzonite, diorite, batholithic intrusives

Precambrian

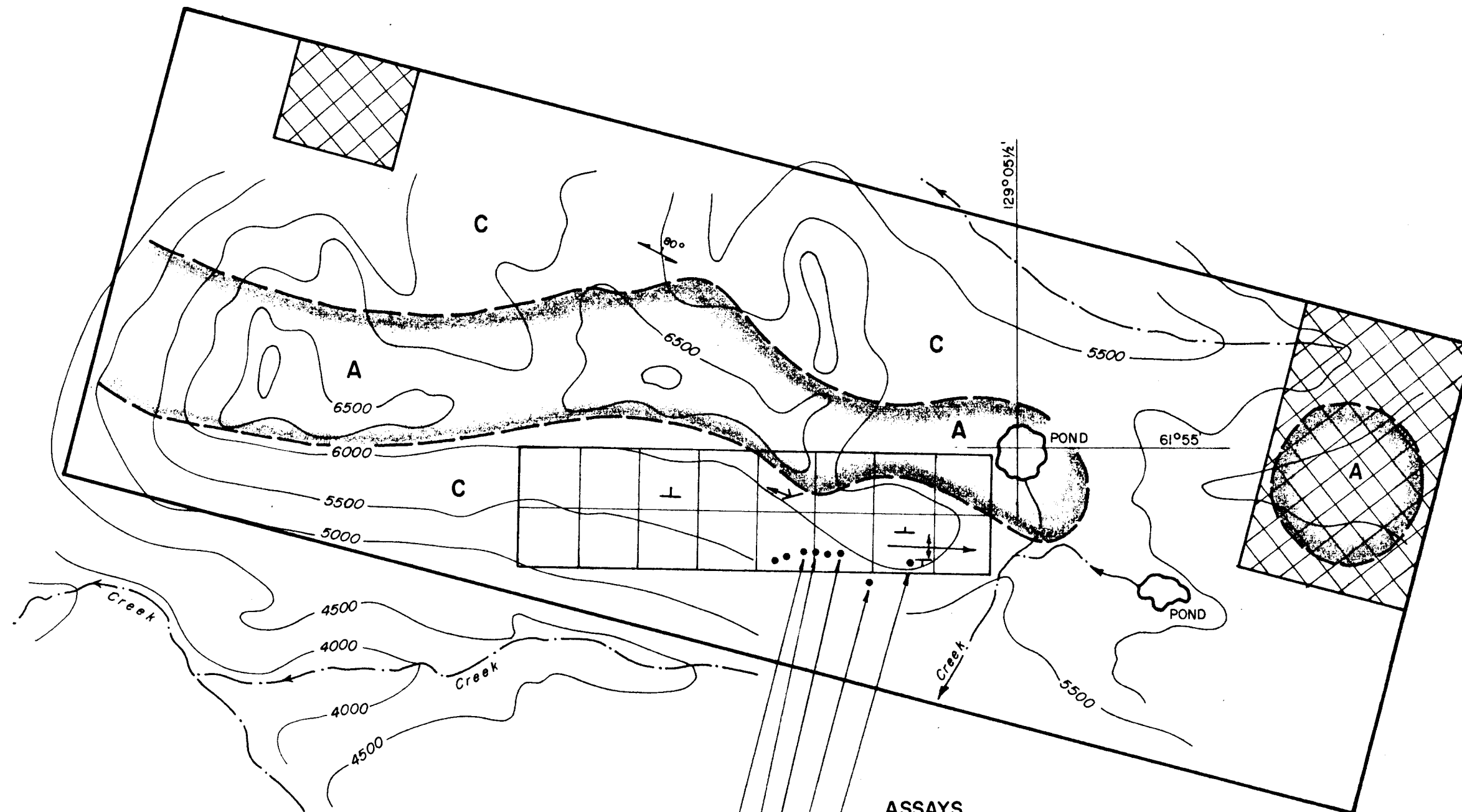
B Metasediments - Quartz feldspar biotite, gneiss, biotite shist, limestone skarn, & pegmatite

C Sediments - Shale, quartzite, conglomerate limestone & phyllite (equivalent to B.?)

○ Base metal occurrences

TELKWA MINING COMPANY LTD.
GENERAL GEOLOGY & LOCATION SKETCH
HITCH-HIKER & P.Y. CLAIM GROUPS
 YUKON TERRITORY - 105H
 SCALE: 1" = 4 Miles

By: ALBERT F. REEVE P. Eng
 GEOLOGICAL ENGINEER
 CORDILLERAN EXPLORATION CORP.



LEGEND:

A Intermediate intrusive rocks

C Sedimentary rocks

● Mineral occurrence

Co-incident anomalous geophysical results { magnetic
electro-magnetic
radiation count

ASSAYS

Number	Width	% Pb.	% Zn.	% Cu.	oz./T. Ag.
9	6'	2.2	79	0.5	1.5
8	Selected	2.4	1.6		3.1
7	Selected	16.2	5.4	0.8	29.3
7	5	1.8	4.4		5.4
5	Selected			1.6	—
4	10'		12.4		—

TELKWA MINING COMPANY LTD.

GEOLOGY SKETCH

HITCH-HIKER & P.Y. CLAIM GROUPS

YUKON TERRITORY - 105H

SCALE: 1" = 4 Miles

By: **ALBERT F. REEVE P.Eng.**

GEOLOGICAL ENGINEER
CORDILLERAN EXPLORATION CORP.

JUNE, 1967

FIG. 2

BOCK W. YIP

CHARTERED ACCOUNTANT

SUITE 410 - 355 BARRARD ST., VANCOUVER 1, B.C. 688-4945

AUDITOR'S REPORT

To the Shareholders
Telkwa Mountain Mines Ltd. (N.P.L.)

I have examined the Balance Sheet of Telkwa Mountain Mines Ltd. (N.P.L.) as at September 30th, 1968 and the Statements of Deferred Expenditures and Source and Application of Funds for the period from inception (January 23rd, 1968) to that date. My examination included a general review of the accounting records and other supporting evidence as I considered necessary in the circumstances.

I have not verified the Company's mineral claims directly with the Government Registry Offices but have accepted the solicitor's opinion that the Company is the beneficial owner of all mineral claims recorded in its accounts.

Subject to the foregoing, in my opinion, the statements mentioned above present fairly the financial position of the Company as at September 30th, 1968 and its source and applications of funds for the period then ended in accordance with generally accepted accounting principles.

November 5th, 1968
Vancouver, Canada



CHARTERED ACCOUNTANT