

002533

GEOLOGICAL REPORT
ON THE
KOKANEE PROPERTY
('AL' 3 - 8 Claims)
SLOCAN MINING DIVISION
BRITISH COLUMBIA

LONGITUDE: $117^{\circ} 02' W$, LATITUDE $49^{\circ} 46' N$
FOR

C H O P P E R M I N E S L T D .

July 1st, 1983
Vancouver, British Columbia

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Consulting Geologist

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Introduction

This report has been prepared at the request of Mr. D.P. Taylor, President of Chopper Mines Ltd.

The property is located at Wheeler Lake, west of Ainsworth, Slocan M.D., B.C., Figure 1.

The writer sampled and mapped the showings covered by the "A1" claims during a property visit on June 28, 1983. This report is based on data and observations obtained during the examination. Other data has been obtained from geological survey reports (see bibliography). There is no other known data pertaining to the Kokanee Gold showings.

A first-phase programme of mineral exploration to test the potential of known and unknown base-precious metal mineralization is recommended.

Location

The claims are located about 9 km west of Ainsworth, B.C. in the Slocan Mining Division. The claim location line extends south 1500 metres from Wheeler Lake, Figure 2.

N.T.S. Map Reference: 92J/9W.

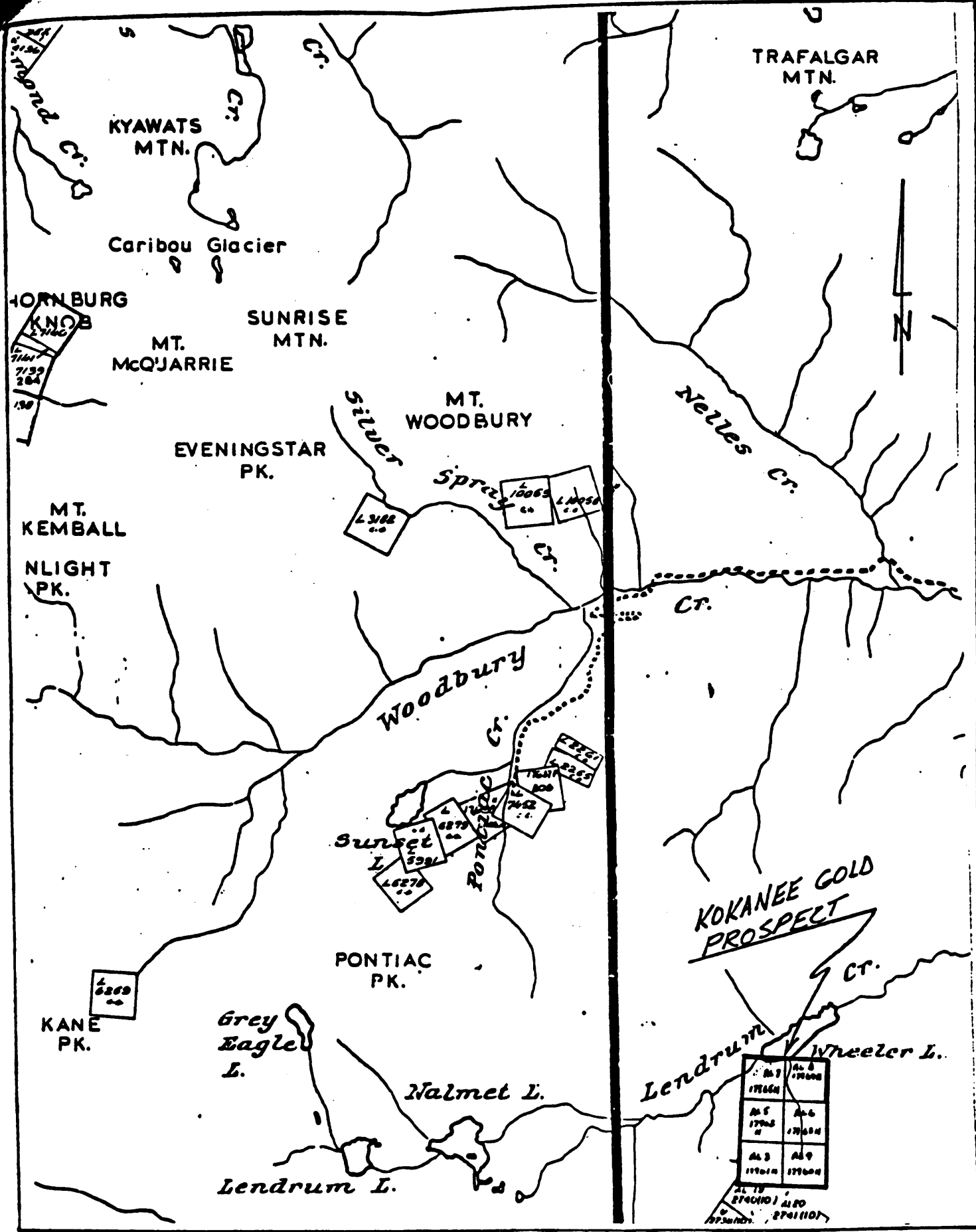
Access

Access to the mineralized showings is by trail up Lendrum Creek from the Nelson-Ainsworth Highway or by local charter helicopter.

Surface access for the purposes of trenching by dozer and drilling is possible up the Lendrum Creek valley 3 km from the end of the Lendrum Creek logging road.

Physiography and Climate

The claim area lies in a mountainous region west of Kootenay Lake. All but the highest ridges and peaks have been glaciated. The main valleys are deeply covered by glacial deposits and recent alluvium.



N.T.S. MAP No. 82F/14E.
 FROM DEPT. OF MINES
 AND PETROLEUM RES.
 JUNE, 1983.

CHOPPER MINES LTD.
 - CLAIM MAP -



'AL' CLAIMS
 SLOCAN MINING
 DIVISION, B.C.
FIGURE 2.

The "A1" claims cover a small-steep creek gully which slopes towards the south end of Wheeler Lake and lie at elevations of about 2000 metres. The mineral showings occur at an elevation of 1700 metres. Rock exposure is confined to the more rugged peaks and cirques with talus and alluvial deposits covering most downhill areas.

Vegetation in the claim area consists mostly of medium to large growth cedar, spruce and hemlock forest cover that reach heights of 50 metres.

History

The showings on the claims were first discovered by a trapper working in the upper Lendrum Creek water shed in the 1950's. Subsequently the showings were staked by Hans Hansen of Ainsworth, B.C.

Mr. Hansen and associates have worked the claims periodically for the last 30 years.

To the writers' knowledge no other parties have ever controlled the claims, nor have any geological or mining engineers ever examined the showings exposed by Mr. Hansen and Associates.

Regional Geology

The claims are underlain by a porphyritic granodiorite phase of the Nelson batholith which is of post lower Jurassic and pre-upper Cretaceous age. For the most part the eastern areas of the batholith are porphyritic. The granodiorite is a coarse, grey rock that generally contains numerous white to flesh-coloured phenocrysts of twinned alkali feldspar. The ground mass is mostly coarsely hypidiomorphic, and it consists essentially of potash feldspar, plagioclase, sometimes zoned, and quartz, with accessory hornblende and biotite.

Property Geology

In the vicinity of the mineralization outcrops of granodiorite are sparse due to a 2 metre thick soil cover, Figures 3 and 4. The porphyritic granodiorite mapped contains light grey feldspar phenocrysts that measure up to 4 cm in length and occur in a medium-to coarse-grained matrix of quartz (15%) hornblende (10%) and feldspar (75%). The feldspar compose 20% of the rock and are randomly orientated. No lineation or foliation was observed. Similarly no structural features such as slickensides or jointing were noted. Alteration is restricted to the mineralized zones.

Mineralization

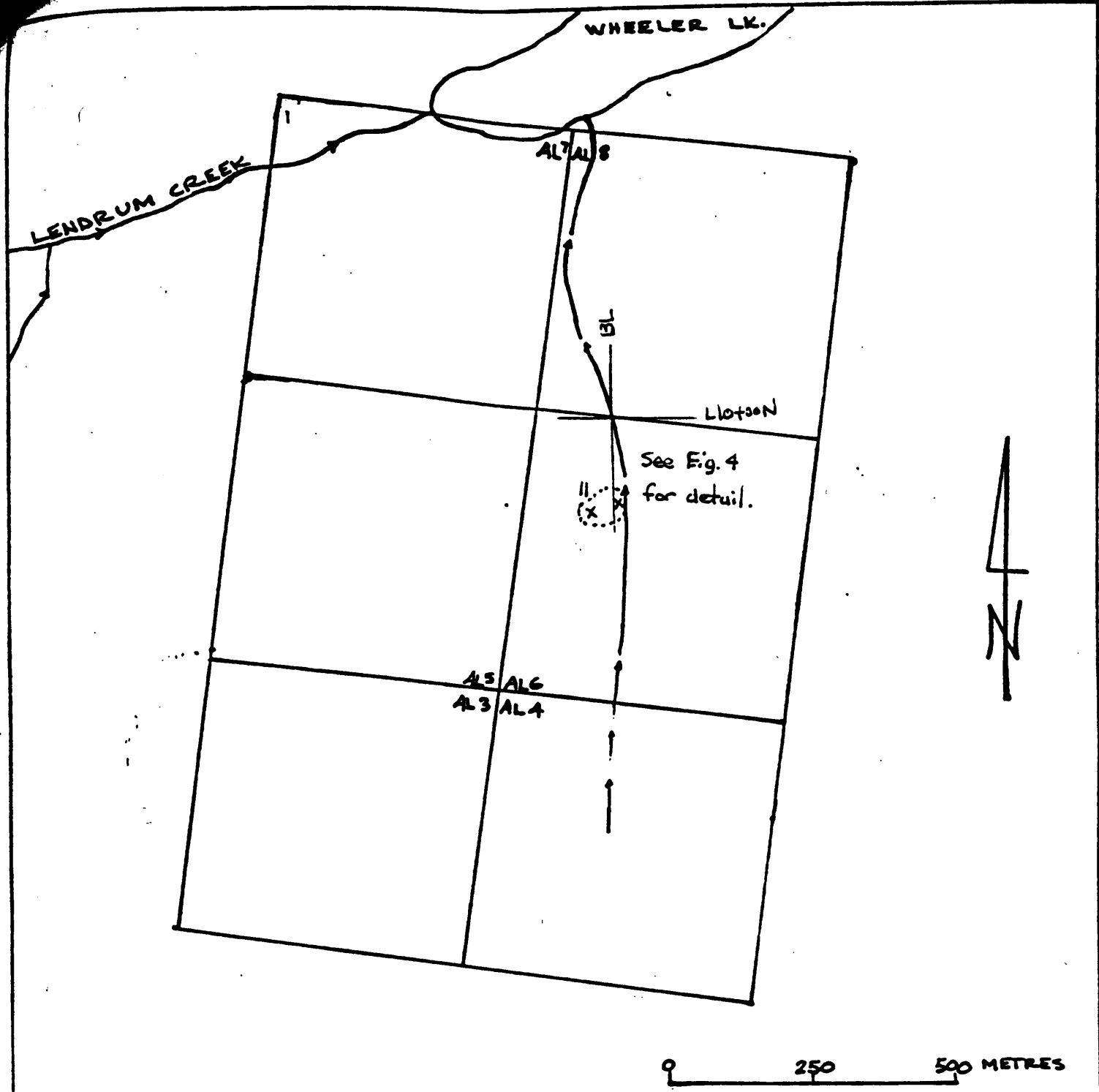
Two mineralized zones approximately 100 metres apart contain galena, sphalerite and pyrite in quartz rich veins, samples Al-1 and Al-4. Alteration other than silicification could not be identified because of the weathering of the sulphides. Because of the poor exposure and lack of fresh samples only grab samples were collected. The extent of the mineralization is left to further work. The samples were analyzed for lead, zinc, silver and gold at Min-En Laboratories in North Vancouver, B.C. The location and description of the samples appear on Table 1. The assay results are located in the appendix.

TABLE I SAMPLE DESCRIPTION

<u>Sample No.</u>	<u>Location</u>	<u>Description</u>
AL-1	8+60N, C-05E	Galena (40%) Spalerite (10%) Pyrite (20%) Quartz (30%)
AL-2	8+66N, C-05E	Galena (5%) in silicified granodiorite
AL-3	8+15N, C-05E	Pyrite (10%) in silicified granodiorite
AL-4	9+60N, C-25W	Pyrite (10%) Galena (3%) in silicified granodiorite. From Pit A
AL-5	9+75N, C-27W	Galena (60%) Pyrite (30%) Quartz (10%) From Pit C.
AL-6	9+80N, C-30W	Galena (10%) Pyrite (5%) Quartz (15%) From Pit D.

SAMPLE RESULTS

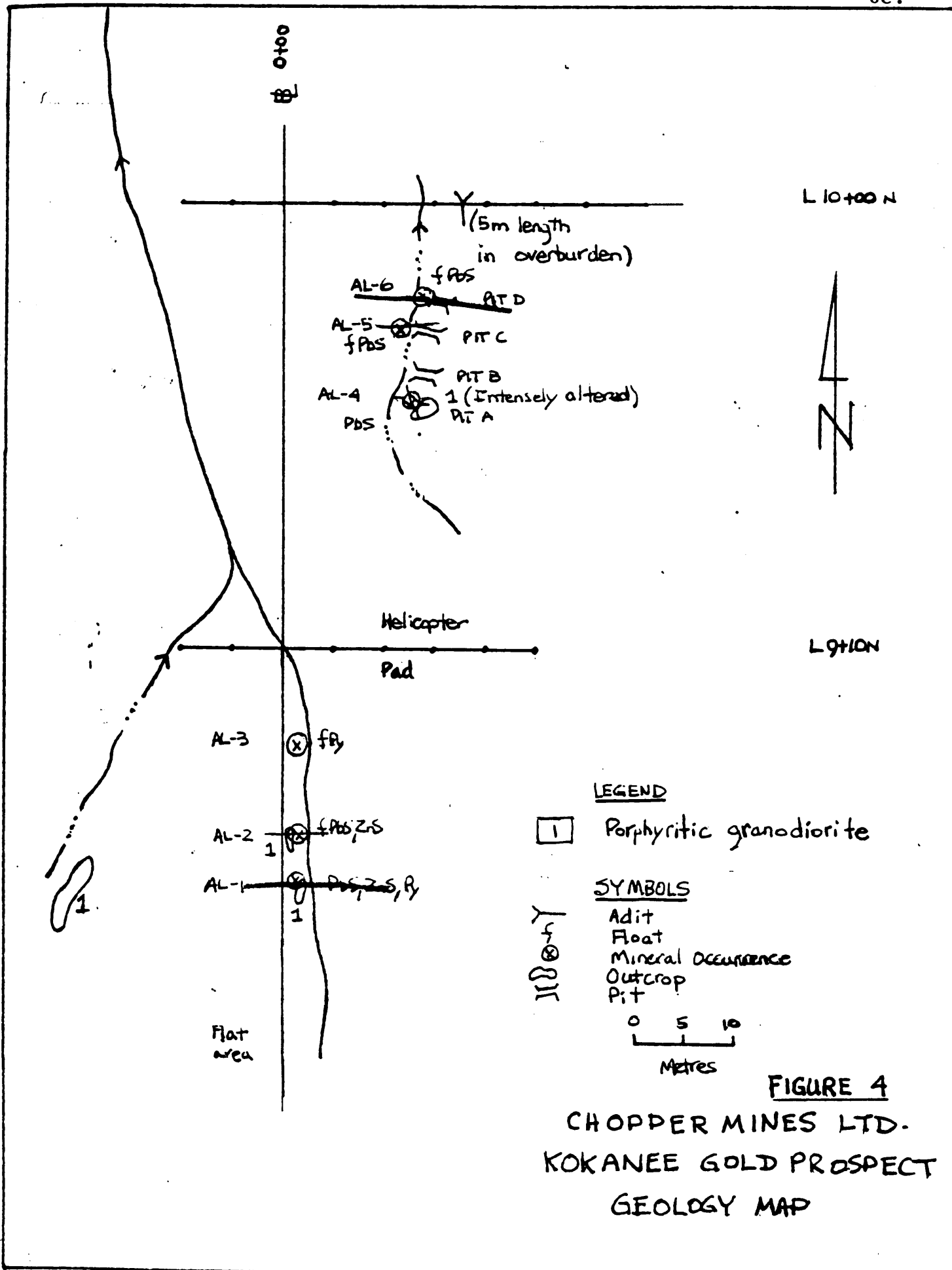
	<u>Pb%</u>	<u>Zn%</u>	<u>Ag</u> <u>oz/ton</u>	<u>Au</u> <u>oz/ton</u>
AL 1	16.10	4.98	5.70	.014
2	1.77	.18	5.98	.002
3	.15	.06	.19	.012
4	.62	1.42	1.12	.016
5	46.80	6.85	14.25	.037
6	27.20	6.50	8.35	.905



LEGEND

- LOWER CRETACEOUS (?) NELSON PLUTONIC ROCKS.
- ALTERATION ZONE.
- FAULT ZONE, SHEAR ZONE.
- ADIT.
DIP AND STRIKE.
- OUTCROP BOUNDARY.
- TRAIL.
- OPEN CUT WITH SAMPLE NO.

FIGURE 3
 CHOPPER MINES LTD.
 KOKANEE GOLD PROSPECT
 PROPERTY GEOLOGY MAP
 JUNE, 1983.



Conclusions

The Kokanee showings are underlain by scattered granodiorite outcrops. Though outcrops are sparse two mineralized zones containing galena and sphalerite were located by hand trenching. The pits have collapsed and where resampled, only oxidized samples could be obtained. The mineralization is typical of that found at most of the mines in the area. Though the total extent of the mineralization has not been determined the potential for locating a combined precious and base metal deposit is good.

Recommendation

A first phase exploration programme is recommended to test for and expand the zones of mineralization.

Phase I

1. Detailed geological and structural mapping of known fault-shear zones, dykes and veins.
2. Prospecting of the whole claim block.
3. Broad soil geochemical survey of the claims for Pb, Zn, Ag.
4. VLF and magnetometer survey in the vicinity of the showings.
5. Hand trenching and blasting of the geochemical anomalies and areas on strike from the mineralization.
6. Chip-channel sampling of all showings.
7. Complete additional claim staking. Subject to positive results from Phase I, a Phase II program recommended by a consulting geologist should be undertaken.

Estimated Cost of Work ProgramPhase I (approx. 14 days)

Salaries Geologist	14 days X 200.00 p/d	\$ 2,800.
Prospector	14 days X 150.00 p/d	2,100.
Blaster, Assistant	14 days X 150.00 p/d	2,100.
Camp (supplies, equip., food, etc.)		2,000.
Equipment (Rock drill, picks, shovels, hammers, topofil, flagging, drag steel, etc.)		1,700.
Fuel, Explosives		1,900.
Truck (Gas, oil etc.)		1,200.
Helicopter	12 hrs. X 500.00	6,000.
Assays (bags, shipping, etc.)		3,000.
Engineering, reports, consulting, etc.		2,500.
Administration, Phone, etc.		900.
		<hr/>
	TOTAL	\$ 26,900.
	Contingencies @ 15%	<hr/> 3,930. <hr/>
	GRAND TOTAL	\$ 30,130.
	Say:	<u>\$ 30,000.</u>

Bibliography

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Certificate

I, J.T. Neelands, of the City of Vancouver, in the Province of British Columbia, hereby certify that:

1. I am a Geologist and reside at 118B West 14th Avenue, Vancouver, B.C.
2. I am a graduate of Carleton University with a B. Sc. in Geology.
3. I have practised my profession as a Geologist since 1971.
4. I am a Fellow of the Geological Association of Canada.
5. This report dated July 1, 1983 is based on work and observations on the Kokanee gold showings ("A1" claims). During my visit to the property on June 28, 1983, as well as reconnaissance work in the surrounding area.
6. I have no direct, indirect, or contingent interest in the "A1" claim group, the subject of this report, or in the securities of Chopper Mines Ltd., nor do I intend to receive any interest.
7. I hereby consent to the use of this report in a prospectus or in a statement of material facts relating to the raising of funds.

Respectfully submitted,



J.T. Neelands
Consulting Geologist

Vancouver, British Columbia
July 1st, 1983

