4552

GREAT PLAINS DEVELOPMENT

COMPANY OF CANADA, LTD.

PROPERTY REPORT

BUCK GROUP

BRITISH COLUMBIA

NICOLA AND SIMILKAMEEN MINING DIVISIONS

92 H/16

M.D. McInnis

August, 1973.

TABLE OF CONTENTS

#1 1. Buck Mineral Claims, Location Map, 1" = 400 feet

#2 2. Ground Magnetometer Survey, 1" = 400 feet.

#3 3. Geology Plan, 1" = 400 feet.

#4 4. Cu Geochemistry - Sample Results, 1" = 400 feet.

#5 5. Zn Geochemistry - Sample Results, 1" = 400 feet.

#6 6. Pb Geochemistry - Sample Results, 1" = 400 feet.

#7 7. Cu Geochemistry - Contoured Results, 1" = 400 feet.

#8 8. Zn Geochemistry - Contoured Results, 1" = 400 feet.

#9 9. Pb Geochemistry - Contoured Results, 1" = 400 feet.

#10 Ground Magnetometer Survey
Station Values (gammas)

1. Summary

The Buck Group is comprised of the following claims:

Claim	Record Nos.	Recorded Owner	Anniversary Date
Buck 1-10	34069-78	G.P.D. Co. of Can.	Aug. 13/73
Buck 12-13	34873-74	G.P.D. Co. of Can.	Mar. 17/74
Buck 24-33	34881-90	G.P.D. Co. of Can.	Mar. 17/74
Buck 38-39	34895-96	G.P.D. Co. of Can.	Mar. 17/74
Buck 57-59	34897-99	G.P.D. Co. of Can.	Mar. 17/74
Buck 18-23	34875-80	G.P.D. Co. of Can.	Mar. 17/74
Buck 34-37	34891-94	G.P.D. Co. of Can.	Mar. 17/74
Buck 40, 48	51267, 75	G.P.D. Co. of Can.	Mar. 17/75
Buck 41-47	51268-74	G.P.D. Co. of Can.	Mar. 15/74
Buck 49	51276	G.P.D. Co. of Can.	Mar. 15/74
Buck 54-56	51281-8	G.P.D. Co. of Can.	Mar. 15/74
Buck 69, 71	51293-95	G.P.D. Co. of Can.	Mar. 15/74
Buck 62-67	51286-91	G.P.D. Co. of Can.	Mar. 15/74
Buck 68, 70	51292, 94	G.P.D. Co. of Can.	Mar. 15/75
Buck 74-89	51298-313	G.P.D. Co. of Can.	Mar. 15/74
Buck 90-93	51314-17	G.P.D. Co. of Can.	Mar. 15/75
Buck 50-53	51277-80	G.P.D. Co. of Can.	Mar. 15/74
Buck 94-99	51318-23	G.P.D. Co. of Can.	Mar. 15/74
Buck 60-61	51284-85	G.P.D. Co. of Can.	Mar. 15/74
Buck 72-73	51296-97	G.P.D. Co. of Can.	Mar. 15/74

Buck 40-47 and 60-99 are located in the Nicola Mining Division; Buck 1-10, 12, 13, 18-33, 38, 39, 58 and 59 are found in the Similkameen Mining Division.

Property evaluatory work for which assessment credit of is requested which was carried out during the period April 24, 1973 to July 8, 1973.

The Buck 1-10, 18-23, 34-37, 50-53, 60, 61, 72 were grouped as Buck #1 Group in August 1972 and assessment credit was applied to maintain these claims in good standing for up to two years. The Buck 12, 13, 24-33, 40-49 and 62-71 were grouped as Buck No.2 Group and the Buck 38, 39, 54-59 and 74-99 were grouped as Buck No. 3 Group in March, 1973 and assessment credit was applied to maintain these claims in good standing for several years. The report details the evaluatory work carried out on the Buck Group during the 1973 summer field season. As a result of the work performed, assessment credit is requested on the claims as follows:

Buck No. 1 Group

Claims	Record Nos.	Assessment Credit Requested	Total
Buck 1-10	34069-78	3 years/claim	30
Buck 18-23	34875-80	3 years/claim	18
Buck 34-37	34891-94	3 years/claim	12
Buck 50-53	51277-80	3 years/claim	12
Buck 60,61	51284, 85	2 years/claim	4
Buck 72, 73	51296, 97	3 years/claim	6
			82

Buck No. 2 Group

Claims	Record Nos	Assessment Credit Requested	Total
Buck 12,13	34873, 74	2 years/claim	4
Buck 24-33	34881-90	3 years/claim	30
Buck 40-49	51267-76	3 years/claim	30
Buck 62-67	51286-91	3 years/claim	18
Buck 68,70	51292, 94	2 years/claim	4
Buck 69,71	51293, 95	3 years/claim	6
			92

Buck No. 3 Group

Buck 38,39	34895,96	2 years/claim	4
Buck 54-56	51281-83	3 years/claim	9
Buck 57-59	34897-99	3 years/claim	9
Buck 74-79	51298-303	3 years/claim	18
Buck 80-99	51304-23	1 years/claim	20
			60

The total value of the requested assessment credit and the total cost of the evaluatory work performed on each of the claim groups is as follows:

Group	Requested Assessment Credit	Cost of Work Performed
Buck No. 1 Group	82 Years	$ 8,200
Buck No. 2 Group	92 Years	$ 9,200
Buck No. 3 Group	60 Years	$ 6,000
		$23,400

This report with accompanying maps and statement of expenditure is hereby submitted to record the above assessment work.

2. Introduction

This report is an assessment of the Buck Group of mineral claims held by Maurice Mathieu and optioned by Great Plains Development Company of Canada, Ltd.

This report is based on the results of a program of geochemical soil sampling, magnetometer surveying and geological mapping carried out over the claim group for Great Plains from April 24th to July 8th, 1973.

The purpose of this report is to synthesize and explain geologic relationships and events as observed on the Buck claim group. The project on the Buck group was primarily aimed at evaluating the economic mineral potential of the property and if possible delineate a target area for follow-up exploration.

3. Location and Access

The Buck Group is accessible by a twenty mile long dirt road which branches from the Princeton-Merritt highway about four miles south of Aspen Grove and terminates near the center of the claim group. The property is roughly centered at Longitude 120°28' and latitude 49°46'. Maximum relief in the area is 1000 feet, the lowest point being at 4500 feet and the highest at 5500 feet. The claim group is characterized by gently undulating plateau topography, generally covered by timber. Outcrop exposure is limited due to a thin mantle of glacial material which thickens appreciably in valley bottoms.

4. Geography and Climate

The topography of the area is generally rolling hills with elevations not exceeding 5500 feet. Two prominent valleys are found within the property boundary; one trends N 70 W which contains Thumb Lake (on which the base camp was located) and the other trends N 50 E and contains Vinson Lake.

Approximately seventy-five percent of the claim area is vegetated by pine. Salal is present over most low lying areas.

The annual rainfall is low and does not exceed 25 inches per year.

5. Geology

A. General Geology

1. Regional Geology

The Buck group is underlain primarily by rocks of the Nicola volcanic lithofacies which consist primarily of volcanic breccias, andesitic flows and minor epiclastic rocks. These rocks are a continuation of the rock units mapped by Peter Christopher (B.C. Dept. of Mines and Petroleum Res., Prel. Map #10, Feb. 1973) in the Aspen Grove area to the northwest of the Buck group. This particular sequence of volcanic breccias and flows is known to persist as far south as the south end of Missezula Lake.

The volcanic lithofacies described above are bounded to the east by acidic intrusive rocks of the Okanagan Pluton which is considered to be of Upper Triassic - Lower Jurassic age. The Okanagan Pluton has played an important role in modifying the volcanic rocks bordering the pluton. This alteration will be described in greater detail in a following section.

2. Structural Geology

The claim area is located on the eastern edge of a northerly trending syncline. The volcanic breccias and interbedded tuffs strike north 10 east to north 20 west and have moderate dips of 40° to 50° to the southwest. The regional distribution of the volcanic lithofacies and sedimentary lithofacies of the Nicola Group is with sedimentary units flanking the volcanic units to the east and west (see figure 1).

Several investigations have suggested that the above mentioned syncline plunges to the south and is segmented into blocks (which may be uplifted and/or tilted) by easterly and northeasterly faults. Possible existence of volcanic centers along the Summers creek lineament (4 miles to the southwest of the Buck Group) is expressed by the presence of alkalic intrusive complexes and associated copper occurrences. It is possible that these complexes represent deeper levels of volcanic centers exposed due to the erosion of uplifted blocks and the positioning of the south plunging syncline. The'Big Kid Breccia' is cited as an example of this feature.

Major northerly and northwesterly trending linears, as expressed by topography, segment the Buck claim group. The western most linear on the Buck Group trends northerly and has had a rotational effect on the volcanic breccia units. This is vividly shown on airphotos A 16664 - 97 and 98. Brittle deformation is characteristic of the Aspen Grove - Missezula Lake area.

3. Rock Types

i) Layered Rocks

The Nicola Group on the Buck claim group has been mapped as consisting of five main units. These are not stratigraphic units as the relative ages are obscured by the massive nature of the volcanic sequence and by complex faulting. Volcanic breccia units are highly variable in the variety, shape and size of the fragments. The relationships between the breccia units are very poorly understood. For this reason, the volcanic breccia units were distinguished primarily on matrix colour.

Unit 1 and Unit 2 were differentiated by matrix colour with Unit 1 having a red matrix and Unit 2 having a green matrix. These two units comprise about 60% of the rock exposed on the Buck Group. Unit 1 was found to be interlayered with a well bedded lithic tuff and it was from this interlayered tuff unit that the majority of dips and strikes were obtained.

Unit 3 was differentiated from the other units by the presence of abundant augite phenocrysts in both flow and fragmental rocks. This unit interfingers with Unit 1 and a contact between the two units is well exposed 1000 feet to the southwest of Thumb Lake. Unit 3 is found to have a gradational relationship with dioritic intrusive rocks exposed at the southwest corner of the property.

Unit 4 is volcanic breccia with an abundance of dioritic fragments which contain ubiguitous hornblende. Textural variations are abundant in this unit and in places this unit may be a flow. The exact nature of this unit is obscured by metasomatic changes which are described in a later section.

Unit 5, consisting of altered flows and pyroclastic rocks, is found to be distributed peripherally to the border of the Okanagan Pluton and has undergone considerable metasomatic changes which make recognition of textural variations within the unit extremely difficult. Alteration of this unit has been distinguished and mapped accordingly.

Unit 6 has been grouped collectively as altered volcanic rocks of the Nicola Group. The most easterly occurrence of these rocks consists primarily of altered andesitic flows and minor beds of poorly sorted, limestone-rich volcaniclastic rocks. Limestone clasts were noted up to 2 feet in diameter. These rocks are epiclastics of predominately volcanic origin.

Unit 6 also occurs in the northeast corner of the property and is composed of altered flows and pyroclastic rocks which are a continuation of Unit 5. However, the varieties and degrees of alteration are not separated as in Unit 5.

ii) Intrusive Rocks

Two main intrusive units are found on and adjacent to the Buck claim group. Both intrusive units are dioritic in composition and have abundant accessory magnetite.

Unit 7, found in the southwest sector of the property, is an augite diorite rich in magnetite, epidote and chlorite (the latter two minerals give a light green tint to the rock). The relationship of this unit to Unit 3 suggests that it is possibly in part recrystallized volcanics.

Unit 8 is a fine to medium grained biotite quartz diorite that is most likely a hybrid rock formed as a marginal facies to the large granodioritic Okanagan Pluton. This intrusive border has played the major role in the alteration of the adjacent Nicola volcanics and the development of concentrations of copper.

Dykes of Unit 9 are of various compositions and occur throughout the area cutting all previously mentioned units.

The most abundant dyke set (Unit 9A) is a greyish and mottled pink, biotite-feldspar porphyry. This dyke set trends easterly, northeasterly and occasionally northwesterly. Easterly trending directions are the more predominant trends and dips are found to be sub-vertical (83° and 85°) to the south.

Biotite granodiorite dykes (Unit 9B) follow northerly trends and are found to be developed in only two areas of the property. Unlike Unit 9A these dykes are generally not sheared and show only minor alteration.

Undivided felsite and trap dykes (Unit 9C) occur in the southwest portion of the property cutting Unit 7. A trap dyke exposed in this area has an irregular easterly trend and dips 70° to the south. Other felsite dykes have northwesterly trends.

(iii) Contact Features

(a) Red and Green Volcanic Breccia Units

Contacts between the red volcanic breccia (Unit 1) and green volcanic breccia (Unit 2) may in places be sharp and well defined although in the majority of cases the units have ill-defined boundaries.

(b) Okanagan Pluton and Nicola Volcanics

Intrusive rocks of the Okanagan Pluton show a lateral

variation in grain size near the Nicola intrusive contact. At the contact, the biotite quartz diorite is fine grained and has a hornfelsic fabric of unorientated, equidimensional quartz, biotite and feldspar grains. The volcanic rocks have been extensively altered and contain "granular microcrystalline quartz". The quartz is found as both replacement and vein material.

(c) Augite Diorite and Augite andesite flow and fragmental rocks.

The contact between these two units (Unit 7 and Unit 3) is gradational and Unit 7 is most probably the recrystallized equivalent to Unit 3. Fragments of Unit 3 were noted to 'fade' into finer grained augite diorite which in turn graded into coarser grained augite diorite. Chlorite is well developed within the transitional area.

(d) Dykes and Nicola Volcanic Units.

Contacts between dyke rocks and the Nicola volcanic units are usually sharp with the development of thin chill margins within the dyke rocks.

B. Mineralization and Ore

1. Mineralogy, Alteration and Controls

Minerals of economic significance found on and in the vicinity of the Buck Claim Group are chalcocite, bornite and chalcopyrite These minerals appear to have restricted modes of occurrence. Chalcocite and bornite are generally related to a sulphur deficient regime while chalcopyrite is found in a more sulphur rich regime. A metallogenic framework for the Princeton area has been proposed by P.E. Fox and is used to classify the two modes of copper occurrences of the Buck Group.

i) Volcanogenic Class

The volcanogenic type of deposits are found directly associated with the Nicola volcanic lithofacies. Bornite and chalcocite mineralization with associated minor specularite occurs in the red matrix volcanic breccia unit. This type of mineralization occurs with epidote - calcite - hematite stringers and veins (epidote usually predominants) which are related to northerly striking fracture zones. Alteration consists of carbonatization and hematization while SiO_2 is deficient and pyrite/chalcopyrite is absent. The altered areas are small in size (100' in width; 400' in length) and are localized. These areas have no economic significance and similar mineralization is known to occur extensively throughout the Aspen Grove area.

The close association of these occurrences with contacts of red and green volcanic breccia units suggests that this is a control for this particular type of mineralization.

ii) Plutonogenic Class

A crudely zoned altered area exists on the eastern portion of the Buck Claim group which is related to contact effects caused by intrusion of the Okanagan Pluton.

Pyrite and chalcopyrite are concentrated in the more intensely altered volcanic rocks. Fracturing has played the principal role in the localization of mineralization. Mineralization is accompanied by hydrothermal epidote and pink feldspar. Silicification is most prevalant in areas adjacent to the Okanagan Pluton and pyrite-chalcopyrite mineralization is best developed in these areas.

Notably, the biotite - quartz diorite is weakly altered and weakly mineralized.

Deposits of this type are known to occur throughout the Princeton map area with Adonis Mines and Primer Minerals being the more well known deposits of this class. Primer Minerals occurs approximately five miles to the southwest of the Buck Claim Group and appears to lie adjacent to a major N 50 E linear along which the Buck Group showings are also found. No economic deposits of this class are known although areas of sub-economic mineralization have been found in similar environments. Deposits within environments as just described are not as economically important as those associated with the subalkaline intrusions.

2. Summary of Economic Geology

The chalcopyrite mineralization on the Buck Claim Group and adjacent Siwash claim group is weakly developed. Showings on the Buck Group are less than .1% Cu while those on the Siwash Group are .1% - .5% Cu over approximately one hundred feet. Possibilities of large tonnage - low grade deposits within the area of the Buck Claim Group are minimal.

6. Geochemical Work

A. Introduction

A total of 824 geochemical samples were collected over an area of 8800 feet by 7200 feet and were analysed for Cu, Pb and Zn. Copper and zinc values gave results which correlated well with the geology observed and an "in the field" statistical analysis of the data was performed. Lead did not show any obvious build-up. Graphs 1A and 1B are frequency histograms for copper and zinc.

The values obtained from geochemical analyses were plotted first individually and then as grouped intervals of 5 ppm intervals. The graphs (1A and 1B) indicate that both copper and zinc appear to be lognormally distributed. A check on sample distribution was made by plotting sample values as a cumulative frequency distribution plot. The logarithmic probability plot theoretically should separate mixed lognormally distributed data into separate populations, each population reporting as a straight line on the graph. The intersection of straight lines can be taken as population boundaries. Graph 2 shows that there are two distinct populations for both copper and zinc. For copper; population 1 and population 2 overlap at 40 ppm and for zinc; population 1 overlaps population 2 at 40 ppm. These two populations for both copper and zinc were separated out (Graph 3) and from this graph background and threshold level was determined for the separate populations.

Crews collected samples, from the "B" horizon where possible, on lines 400 feet apart at every 200 foot center on the lines. All sample sites were flagged and control was provided by chain and compass.

The soil was collected with a scoop and transferred into Kraft paper sample bags. The samples were then tied, recorded and shipped to Chemex Labs in Vancouver for assay.

The procedure used for laboratory processing and analysis of soil samples is as follows:

1. Samples are sorted, recorded and dried at 60°C.
2. Dried samples are sieved to -80° mesh fraction with a nylon and stainless steel sieve.
3. 0.5 gram of -80 mesh sample fraction is weighed into a

test tube and digested with hot 70% perchloric and concentrated nitric acid. Samples are digested until all organic material is oxidized (approx. 4 hrs.)

4. Digested samples are diluted to 25 ml. volume with demineralized H_2O and mixed thoroughly. Solutions are settled until clear.
5. Copper is analyzed in aqueous solution with Techtron A-A-3 Atomic Absorption Unit - Detection limit in soils and stream sediments for Copper is 1 ppm.
6. Molybdenum below 5 ppm is analyzed colorimetrically, with stannous chloride - ammonium thiocyanate procedure and "moly iso-amyl alcohol" is read on Bausch and Lomb Spectromic -20. Detection limit 1 ppm Molybdenum greater than 5 ppm is analyzed by atomic absorption - detection 2 ppm.

1. Copper Results

Graph 2 shows that 74% of the samples taken have low background copper concentrations between 10 and 30 ppm which is an unusually low population for Nicola volcanics. The remaining 36% of the samples have higher background copper concentrations between 50 ppm to 100 ppm. Since the distributions follow a lognormal distribution pattern, it can be assumed that a higher concentration of copper exists and will be mapped when the metal content of the soil samples rises above the threshold value. A threshold value of 70 ppm was used for Cu (see graph 2) in order to enhance weak anomalies.

2. Zinc Results

Graph 2 shows that 20% of the samples taken have low background zinc concentrations between 10 and 30 ppm. The remaining 80% of the samples have higher background zinc concentrations of between 50 and 78 ppm. A threshold value of 70 ppm was used to delineate areas of higher concentrations of zinc.

B. Spatial Relationship of Anomalous Areas

The largest anomalous areas of both copper and zinc coincide with Unit 5 of the Nicola Group. Generally, higher copper concentrations are located towards the eastern edge of the property. Depressed Cu concentrations (population 1) are predominately confined to Units 1 and 2. Sporadic higher values are attributed to small epidote - calcite hematite stringers which may contain bornite and or chalcocite. Other sporadic anomalies are most probably due to waterlogged areas. Downhill creep of metal concentrations is evident but is minimal and is perhaps no more than 500 feet.

From the data obtained, it appears that areas of high concentration of zinc and copper and positive environments.

C. Summary of Geochemical Data

The higher copper and zinc concentrations on the eastern border of the property along with greater alteration suggests that areas bording the intrusive are more prone to metal accumulations then those areas farther away. Glacial deposits do not appear to mask underlying mineralization as shown by the correspondence of geological and geochemical data. Soil sampling is then a useful exploration tool in this particular area.

7. Geophysical Work

A. Ground Magnetometer Survey

1. Introduction

A ground magnetometer survey was conducted over the eastern half of the Buck Mineral Claims during May and June of 1973. A total of 30 line miles was completed over a grid with dimensions 6000' E-W by 11,200' N-S. Readings were taken every 200' along E-W lines spaced 400' apart.

The instrument used was a Geometrics portable proton precision magnetometer, model G-816. Readings varied from a low of 6280 gammas to a high of 10,480 gammas, giving a total spread in values of 4200 gammas. V. Read, R. Scott and D. Blackadar were the instrument operators.

The purpose of the survey was to seek out anomalously high areas on the premise that magnetite, a mineral having high magnetic susceptibility, is closely associated with copper sulphide occurrences. Gross structural features inferred by magnetic interpretation and correlation of magnetics with geology and geochemistry would serve as interpretational guides to possible ore.

2. Results

A north-south trending anomalous area of considerable size and field strength was found to exist over a zone of hydrothermal alteration delineated earlier by detailed geological mapping. (A geochemical Cu-Pb-Zn soil anomaly was also found over the same area).

The anomalous area is somewhat deltoid in shape, fanning out to the north from a point in the central portion of the southern half of the grid (north-south trending as a whole).

The southern half of the grid was found to be relatively calm, displaying lower relief and lower spacial frequencies than that found in the northern half.

3. Conclusions

The anomalous area is most probably the direct result of concentrations of magnetite introduced to the volcanics during one or more stages of hydrothermal activity - Magnetite is related to copper mineralization.

The anomalous area parallels a N-S trending fault linear situated along Siwash Creek 1/2 mile to the east, suggested that faulting is the major structural control for mineralization.

Relatively high spatial frequencies in the northern half of the grid indicates a diversity of flow types laterally and vertically consequently giving rise to erratic cross-sections.

Relatively low relief and low spacial frequencies in the southern half of the grid suggests at least three possibilities:

1) the presence of a near surface intrusive body dipping shallowly to the north-east (Okanagan Batholith)

2) the presence of a homogeneous volcanic flow of moderate vertical and horizontal extent.

or 3) a concealed sedimentary unit of similar dimensions to 2).

Although speculative in nature, the fanning out of the anomaly (magnetite) and the location of the Okanagan Batholith to the S-E seems to suggest that hydrothermal solutions moved in a northerly

direction along the strike of the N-S fault system along Siwash Creek.

8. Recommendations

Work to date has outlined a zone of favorable hydrothermal alteration accompanied by strong fracturing and minor mineralization The mineralization in surface outcrop is not of economic tenor but the characteristics of the zone strongly suggests that the area has been subjected to widespread hydrothermal activity, probably related to the intrusive to the east, and that no structural sites should go untested. The valley immediately to the east of the mineralized zone offers the possibility of a larger structural trap and it is recommended that this area be tested by a series of percussion drill holes.

9. APPENDIX

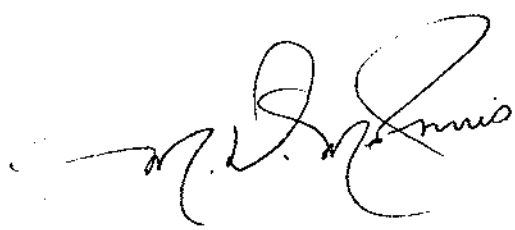
1. Statement of Qualifications

[OVER]

STATEMENT OF QUALIFICATIONS

I, Michael D. McInnis, with business address in Calgary, Alberta do certify that:

1. I am a geologist employed by Great Plains Development Company of Canada, Ltd.,
2. I am a graduate of the University of British Columbia with a B.Sc in Honours Geology, 1969.
3. I have been engaged in mineral exploration since graduation and have worked extensively in Western Canada.



M.D. McInnis

2. Statement of Expenditures

Salaries	
V.K. Read, April 24 to July 5	
73 days at $35/day	$2,555
M. McClaren, April 24 to July 1	
69 days at $35/day	$2,415
Rik Visagie, June 6 to 18	
13 days at $35/day	$ 455
Randy Scott, April 24 to July 5	
73 days at $35/day	$2,555
D. Blackadar, April 30 to July 1	
63 days at $35/day	$2,205
L. Smith, April 24 to May 22	
29 days at $35/day	$1,015
B. Edmonson, June 6-17, June 22-23	
14 days at $35/day	$ 490
L.R. Golemba, May 29-31, June 1-4, 24-30	
14 days at $35/day	$ 490
M.D. McInnis, 12 days supervision	
at $65/day	$ 780
Geochemistry	
Soil assays, rock assays and equipment	$1,652
Geophysics	
Magnetometer rental, 54 days at $10/day	$ 540
Road Improvement	$ 530
Domicile	$3,251

Camp Supplies	$2,388
Truck Rental and Maintenance	
2.5 months at $495/mo	$1,406
Base Map Preparation	
(Topographic may prepared from air photos)	$ 405
Mobilization and Demobilization	$ 348
	$23,480

10. References

(i) Preliminary Geological Map of the Aspen Grove Area, B.C.
B.C. Dept. of Mines & Petroleum Resources P.A. Christopher.

(ii) On the Importance of Mechanical Action and Thermal Gradient in the Formation of Metal-Bearing Deposits.
Mineralium Deposita, Volume 7, pp. 339-350, 1972
J.L. Dandurand, J.P. Fortune, R. Perami, J. Schott, F. Tallon.

(iii) Geology and Exploration, Princeton Area, B.C.
A Report for Great Plains Development Co of Canada,
P.E. Fox.

(iv) C.I.M. Bulletin Volume 66, April 1973, p. 105
T. MacAuley.

(v) Geology of Copper Mountain.
B.C. Department of Mines and Petroleum Resources
Bulletin 59, V.A. Preto.

(vi) Geology and Mineral Deposits of the Princeton Map - Area B.C. G.S.C. Memoir 243 H.M.A. Rice.

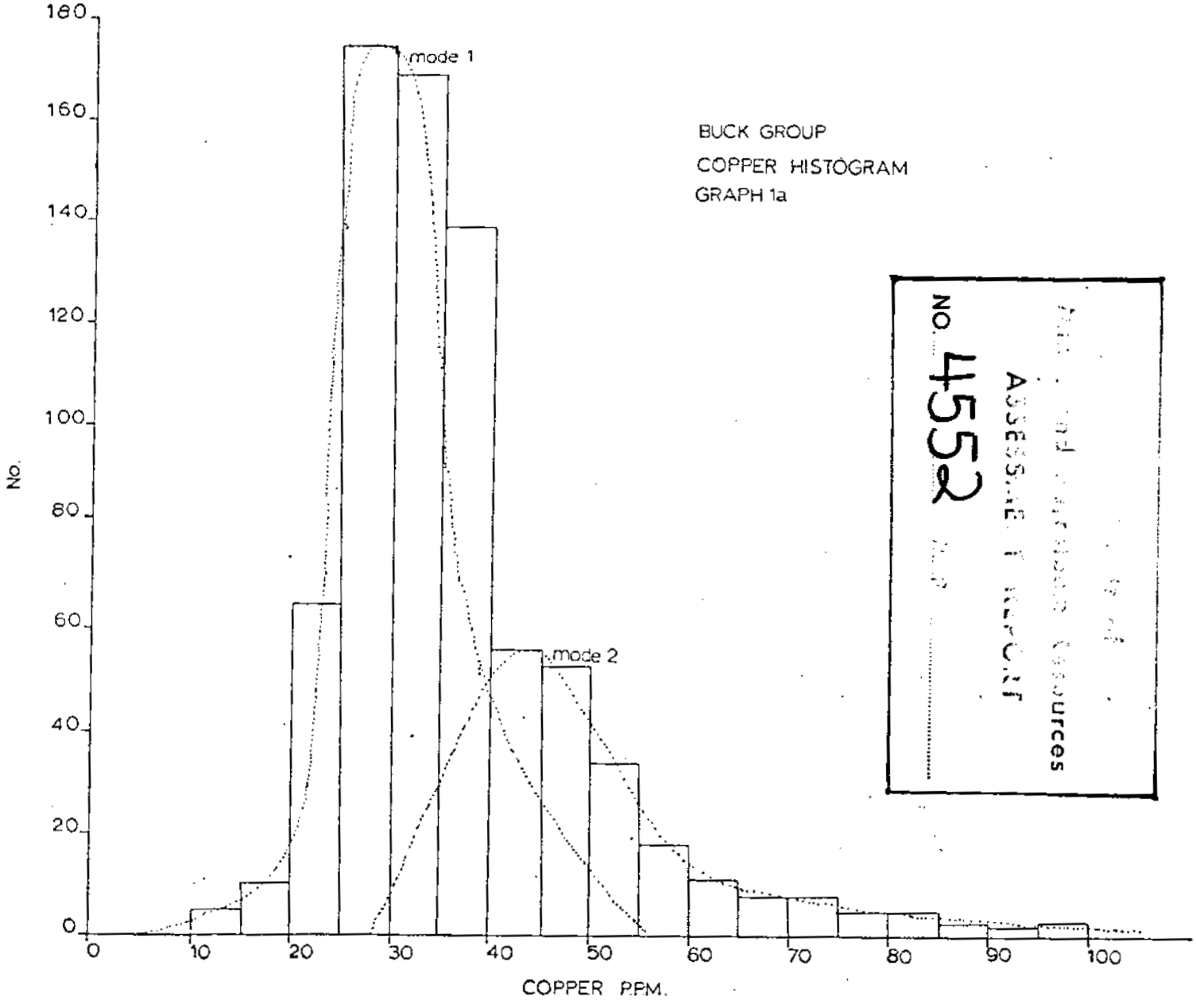
(vii) Geology of the Upper Triassic Nicola Group in South Central B.C.
Ph.D. Thesis, U.B.C. Dec 1968.
M.P. Schau

(viii) Discussion and Reply to Discussion on the Copper Content of the Nicola Volcanics. Economic Geology, Vol. 65, No 1 pp 62-64 M.P. Schau.

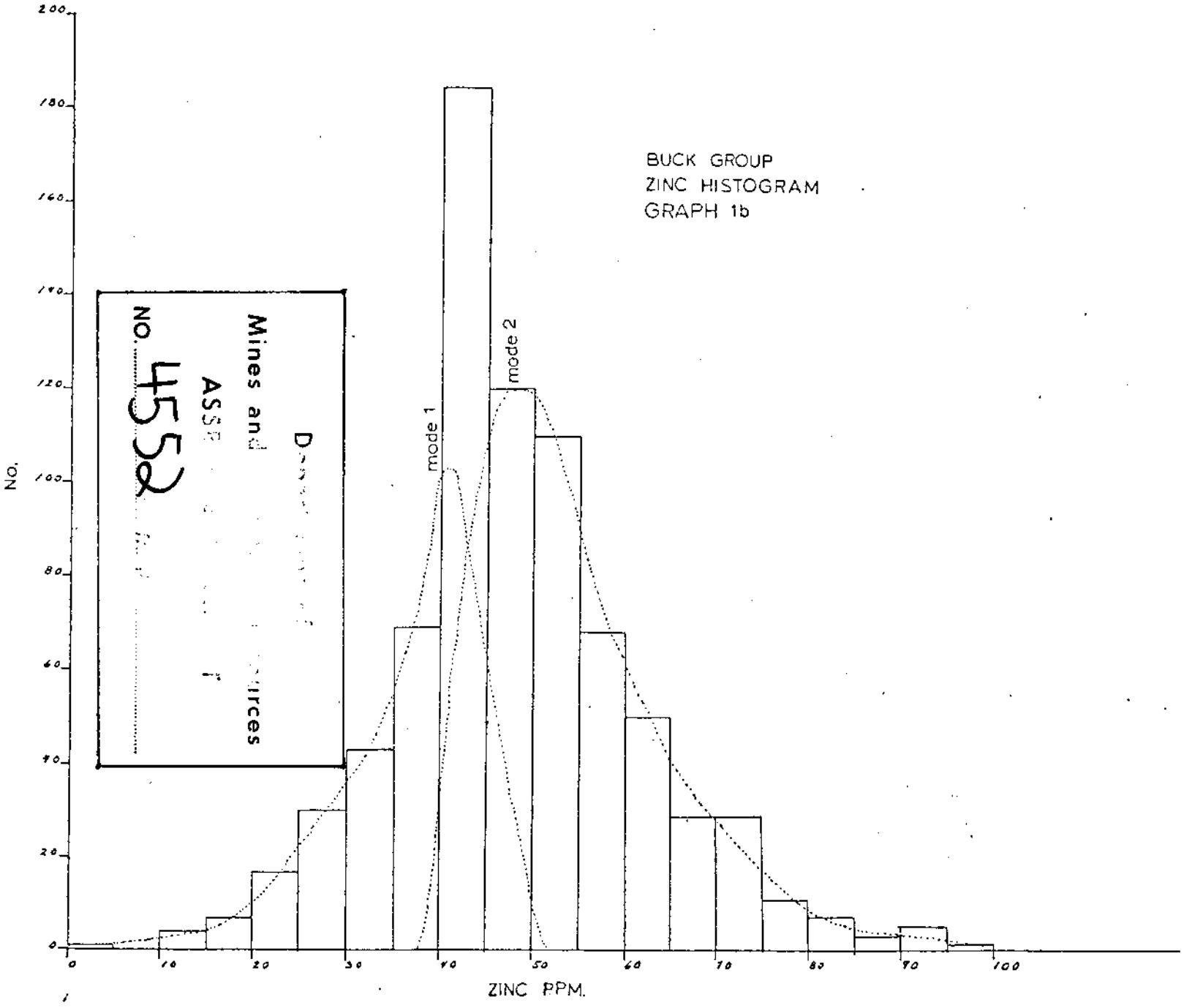
BUCK GROUP

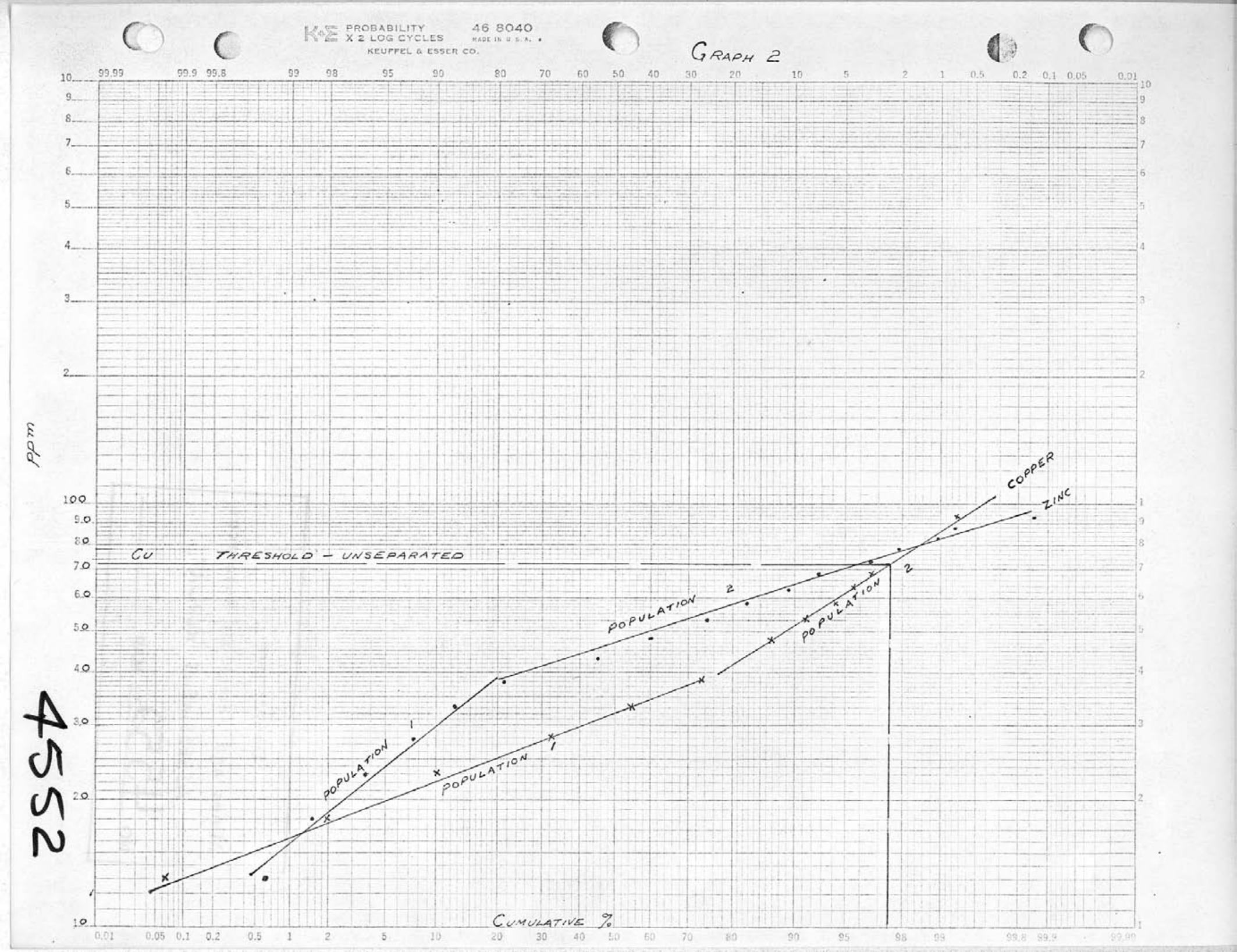
COPPER HISTOGRAM

GRAPH 1a



BUCK GROUP
ZINC HISTOGRAM
GRAPH 1b

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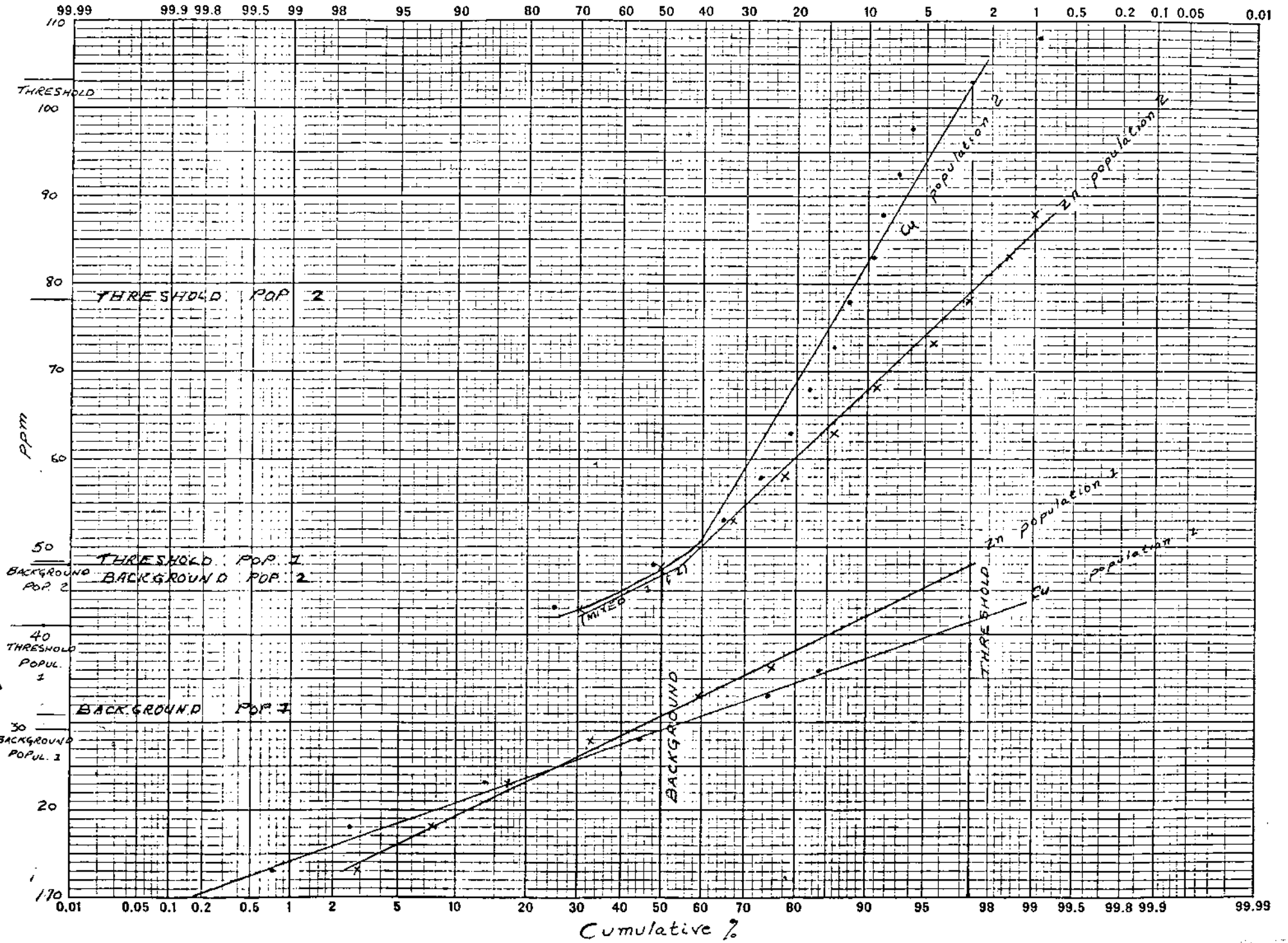
X 2 LOG CYCLES MADE IN U.S.A.
KEUFFEL & ESSER CO.
GRAPH 2
ppm
CU THRESHOLD - UNSEPARATED
POPULATION 1
POPULATION 2
POPULATION 1
POPULATION 2
COPPER
ZINC
CUMULATIVE %
4552

GRAPH 3



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"GREATPLAIN"

REGISTERED MAIL

OCT 3 '73 AM

1st October, 1973.

DEPT. OF MINES
AND PETROLEUM RESOURCES

REFERRED TO	DATE	INITIAL
D. M.		
C.G.C.		
C.C.		
D.C.G.C.		
D.C.C.		
ACCTS.		
C.M.B.		
C.I.		
C.A.		
R. T.		
C.P.E.		
FILING CLERK		

Mr. E.J. Bowles,
Chief Gold Commissioner,
Department of Mines
& Petroleum Resources,
VICTORIA, B.C.

Dear Sir:

Re: Buck Mineral Claims - Assessment Report #4552 - Your Request for Additional Information.

Enclosed is the information you required as stated in your communication with us, dated September 11th, 1973.

Enclosed are:

1. Graphs 1 to 3 in duplicate.
2. Two copies of the map showing individual magnetic values obtained during the magnetometer survey.

Lead and Zinc were analysed in exactly the same fashion as were copper and molybdenum - in aqueous solution with a techtron A-A-5 atomic absorption spectrometer. Detection limits were 1 ppm for zinc and 2 ppm for Lead. All values for lead and zinc were higher than their respective detection limits, therefore more sensitive techniques were not necessary.

It is hoped that the above will meet with your satisfaction. Any additional information will gladly be forwarded upon request.

10745

Yours very truly,

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA, LTD.,

V.K. Read

V.K. Read
Geophysicist

VKR/jda

Enc.

Department of
Mines and Petroleum Resources
NO. 4552 M. P.

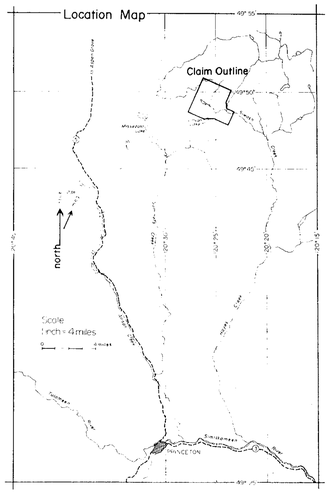
DEVELOPMENT COMPANY
OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92 H/16

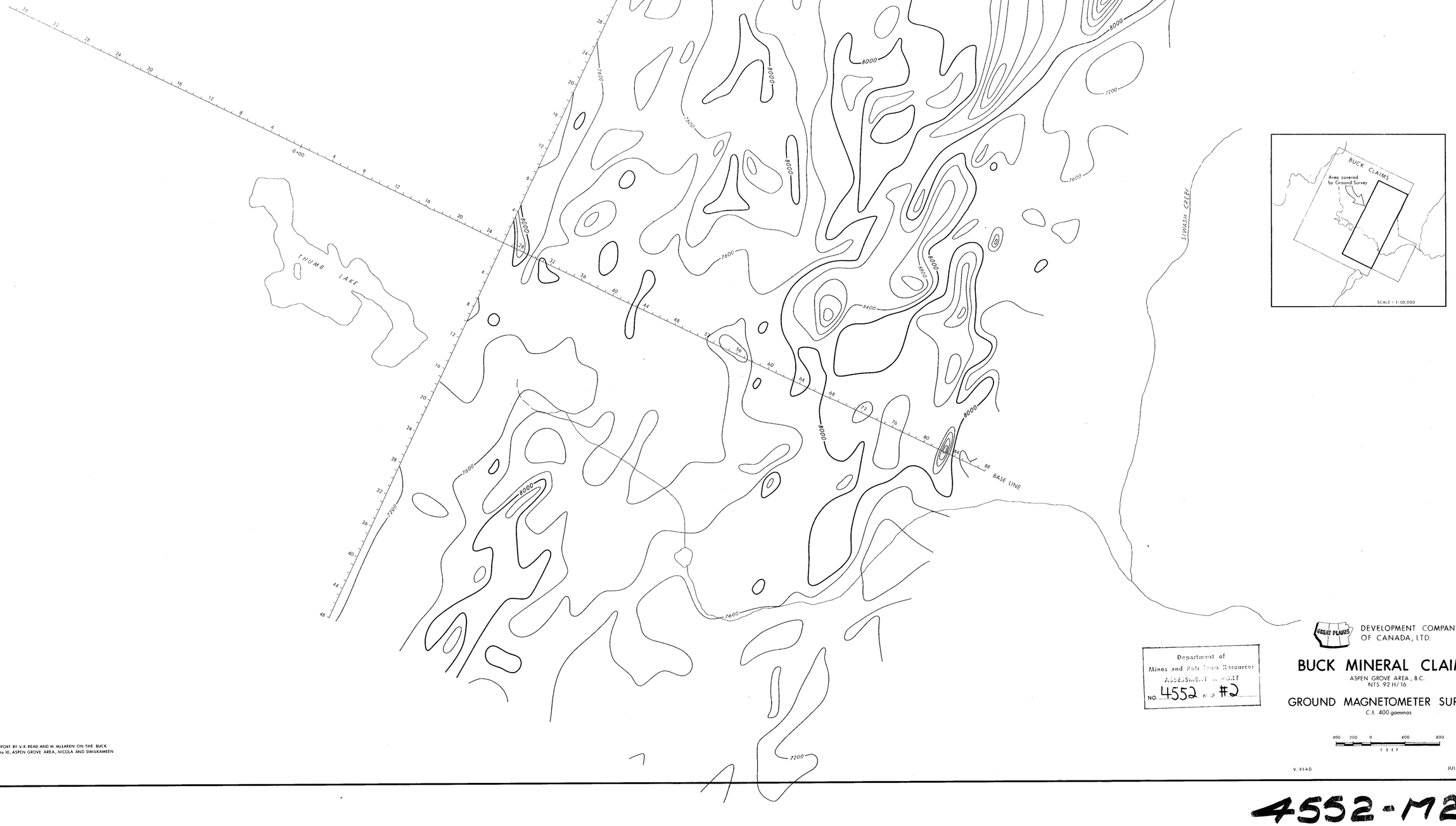
400 200 0 400 800
FEET

JULY 1973



TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.

4552-M1



TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92H/16

GROUND MAGNETOMETER SURVEY

C.I. 400 gammas

400 200 0 400 800
FEET

V. READ JULY 1973

4552-M2

LEGEND

TERTIARY (?)

- 9A BIOTITE-FELDSPAR PORPHYRY DYKES
- 9B BIOTITE GRANODIORITE DYKES
- 9C FELSITE and TRAP DYKES

LOWER JURASSIC (?)

- 8 FINE to MEDIUM GRAINED BIOTITE-QUARTZ DIORITE
- 7 MEDIUM GRAINED AUGITE DIORITE

UPPER TRIASSIC NICOLA GROUP

- 6 UNDIVIDED ALTERED VOLCANIC FLOWS and PYROCLASTICS
- 5 ALTERED VOLCANIC BRECCIAS and FLOWS- PINK FELDSPAR, EPIDOTE, MAGNETITE and CHLORITE ALTERATION
- 4 ALTERED VOLCANIC BRECCIAS and FLOWS- PYRITE, EPIDOTE and CHLORITE ALTERATION
- 3 MASSIVE AUGITE ANDESITE FLOWS and VOLCANIC BRECCIA
- 2 VOLCANIC BRECCIA and LITHIC TUFFS- MASSIVE GREEN SEQUENCE
- 1 VOLCANIC BRECCIA - MASSIVE RED SEQUENCE

- × Cu < .1%
- ○ Cu > .1%
- AREA of SUB-OUTCROP
- GEOLOGIC BOUNDARY ASSUMED
- GRADATIONAL CONTACT
- PROMINENT LINEAR
- FAULT
- SHEAR
- PREDOMINANTLY FRAGMENTAL
- DIP & STRIKE of FRAGMENTAL UNIT CONTACT
- DIP & STRIKE of BEDDING

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA, LTD.

BUCK MINERAL CLAIMS

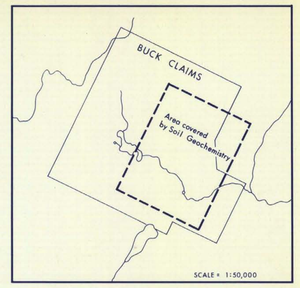
ASPEN GROVE AREA, B.C.
NTS 92 H/16

GEOLOGY

400 200 0 400 800
FEET

GEOLOGY BY : M. McLAREN JULY 1973

TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.



SCALE = 1:50,000

THUMB LAKE
VINSON LAKE LINEAR
SIWASH CREEK
BASE LINE
PLACER WORKINGS

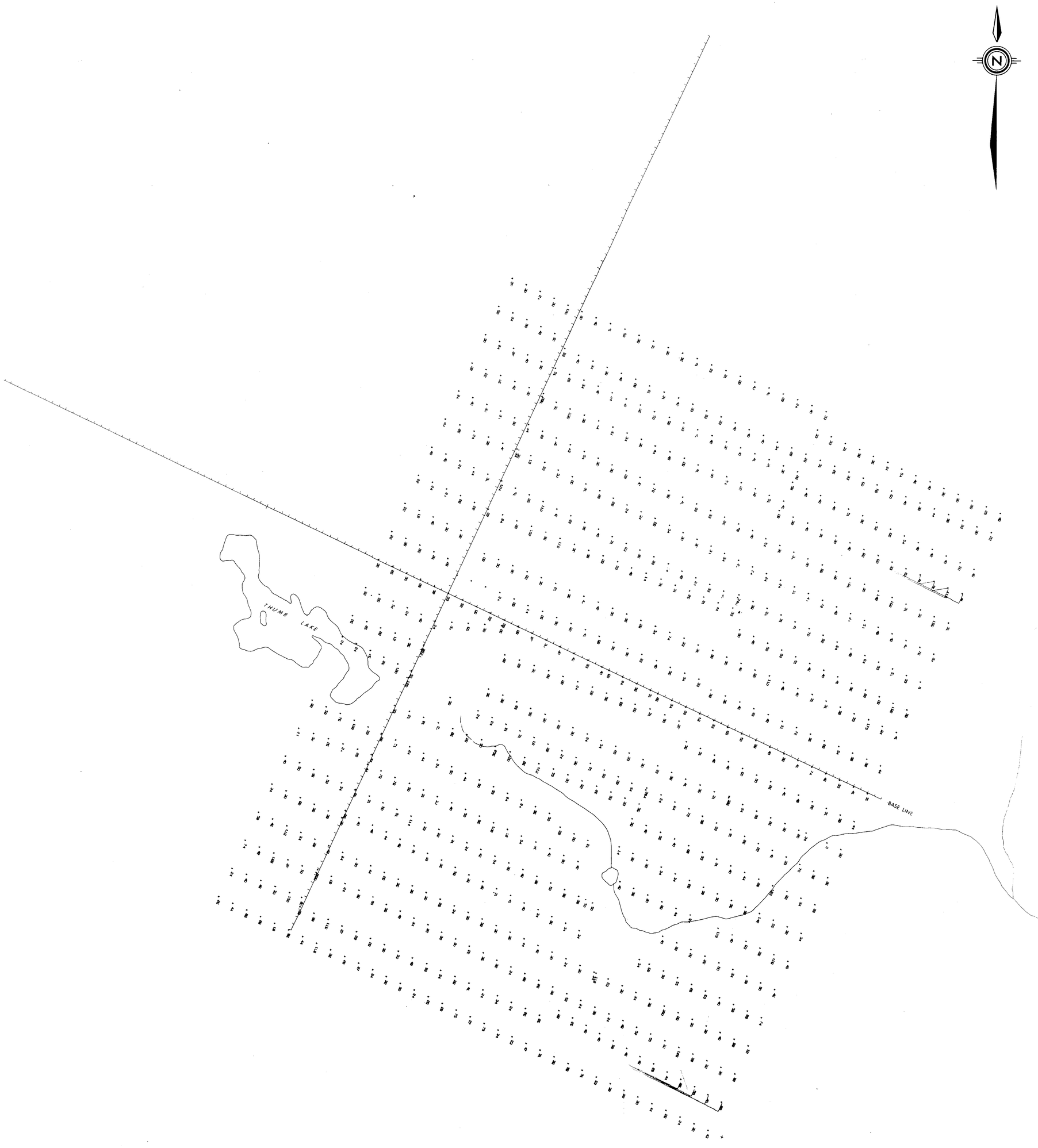
4552-M3

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

BUCK MINERAL CLAIMS

COPPER GEOCHEMISTRY

(ppm)



TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.

4552-M4

DEVELOPMENT COMPANY
OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92 H/16

ZINC GEOCHEMISTRY

(ppm)

400 200 0 400 800
FEET

V. READ
R. SCOTT

JULY 1973

TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973

DEVELOPMENT COMPANY
OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92 H/16

COPPER GEOCHEMISTRY

CONTOUR INTERVAL : 20 ppm

400 200 0 400 800
FEET

V. READ
R. SCOTT

JULY 1973

4552-M7

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4552 MAP #6

BUCK MINERAL CLAIMS

LEAD GEOCHEMISTRY

(ppm)

TO ACCOMPANY PROPERTY REPORT BY V. K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.

4552-M6

DEVELOPMENT COMPANY
OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92 H/16

ZINC GEOCHEMISTRY

CONTOUR INTERVAL : 10 ppm

400 200 0 400 800
FEET

V. READ
R. SCOTT

JULY 1973

TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.

4552-M8

DEVELOPMENT COMPANY
OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92 H/16

LEAD GEOCHEMISTRY

CONTOUR INTERVAL : 5 ppm

400 200 0 400 800
FEET

V. READ
R. SCOTT

JULY 1973

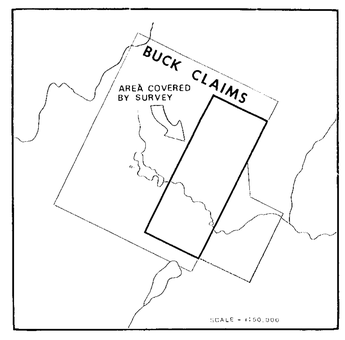
TO ACCOMPANY PROPERTY REPORT BY V.K. READ AND M. McLAREN ON THE BUCK MINERAL CLAIM NUMBERS 1 to 10, ASPEN GROVE AREA, NICOLA AND SIMILKAMEEN M.D., dated JULY 17, 1973.

4552-M9

THUMB LAKE

SIWASH CREEK

BASE LINE



DEVELOPMENT COMPANY OF CANADA, LTD.

BUCK MINERAL CLAIMS

ASPEN GROVE AREA, B.C.
NTS 92H/16W

GROUND MAGNETOMETER SURVEY
STATION VALUES (gammas)

400 200 0 400 800
FEET

V. READ

JULY 1973

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4552 MAP #10

4552
M10