

6022

GREAT PLAINS DEVELOPMENT COMPANY
OF CANADA, LTD.

1976 GEOCHEMICAL REPORT
ON THE
AS 1-12 CLAIMS

#6022-

AS

104 G/4E

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. 6022

N. T. S. 104 G/4
Liard Mining Division
57 degrees, 06 minutes North
131 degrees, 32 minutes West



G. L. Garratt
October, 1976

CONTENTS

Page No.

A.	SUMMARY	1
B.	INTRODUCTION	2
	1. History	2
	2. Ownership	3
	3. Location and Access	3
	4. Economic Considerations	3
C.	EXPLORATION	3
	1. Linecutting	3
	2. Geochemical Survey	4
D.	DISCUSSION OF RESULTS	4, 5 & 6
E.	CONCLUSIONS	6, 7
F.	RECOMMENDATIONS	7
G.	APPENDICES:	
	I - Statement of Qualification	
	II - Statement of Expenditures	
	III - Crew Breakdown and Contractors	
	IV - Geochemical Analyses Results	
H.	ATTACHEMENTS	
	<i>Maps</i> #1 1. Claim Location Map (1: 50,000)	
	2 2. Grid Location Map and Sample Locations (1 in. = 500 ft.)	
	3 3. Copper Geochemistry (1 in. = 500 ft.)	

A. SUMMARY

A critical review of the work done by Julian Mining in 1964 and 1965 led Great Plains to the conclusion that the potential for porphyry copper type mineralization on the AS group had not been fully tested. It seemed apparent that Julian had placed their emphasis on the intrusive body and found that grades were sub-economic. From the drill hole and geochemical data that was available from Julian's work, it was concluded that areas peripheral to the intrusive on the east and west had not been tested and that these areas showed potential as evidenced by geochemical anomalies and drill hole data along the edges of the intrusive. Because of the metamorphic effects of the intrusive body, the contact zone is difficult to delineate due to the destruction of primary textures. After an inspection of the property made by Great Plains in 1975 and Julian's data was received, the interpretation of the placement of the contact between the intrusive body and the outlying volcanics was altered. This meant that untested areas lying outside the previous limits of the intrusive needed to be explored.

Because of the dense tag alder growth and steep slopes, it was decided that linecutting would be necessary to gain access for exploring the property. The 1976 field program was designed to test the areas peripheral to the new intrusive boundaries by soil geochemical sampling and to try to reproduce the geochemical data of previous exploration for correlative purposes, by this same method.

This program involved the cutting and sampling of 6.73 miles of line, and was carried out between August 1 and 15, 1976. Four men were employed to cut the lines which took eight days, including travel time to and from the property. Two men were involved in the soil sampling which was carried out over a period of seven days including travel time to and from the property.

Assessment credit is requested for this work on the claims and is outlined below:

<u>CLAIMS</u>	<u>ASSESSMENT CREDIT REQUESTED</u>	<u>TOTAL</u>
AS 1,2,3,4,7,9	1 year @\$100.00 + 2 years @\$200.00	18 yrs./\$3,000.00
AS 5,6,8,10,11,12	1 year @\$100.00 + 2 years @\$200.00	<u>18 yrs./\$3,000.00</u>
		36 yrs./\$6,000.00

B. INTRODUCTION

History

- 1964-65: Julian Mining Company carried out a program of geological mapping, trenching, geochemical sampling, magnetometer survey, and diamond drilling in the area between First Split and Second Split Creeks. This program resulted in the definition of sub-economic mineralization in the intrusive and the property was subsequently allowed to lapse.
- 1974: Great Plains Development Company of Canada, Ltd. - Staked 12 Claims.
- 1975: Great Plains Development Company of Canada, Ltd. - Preliminary evaluation of the property by reconnaissance, mapping and soil sampling.
- 1976: Great Plains Development Company of Canada, Ltd. - Linecutting and soil geochemical sampling to evaluate the potential for lateral extension of mineralized zones.

Ownership

The property consists of twelve contiguous mineral claims which are owned by Great Plains Development Company of Canada, Ltd. The following is a schedule of the land holdings and pertinent data:

<u>CLAIMS</u>	<u>RECORD NUMBERS</u>	<u>RECORDING DATE</u>
AS 1-4	72157-60	August 15, 1974
AS 7, 9	72163, 65	August 15, 1974
AS 5,6,8,10,11,12	72151, 62, 64-68	August 15, 1974

Location and Access

The AS claims are located in the Coast Range, 6.5 miles southwest of the junction of the Anuk and Stikine Rivers. The coordinates of the claims are: 131 degrees 32 minutes west longitude; 57 degrees 06 minutes north latitude. Elevations on the group range from 2,000 feet along Split Creek to over 4,500 feet on the valley walls. Split Creek flows into the Porcupine River near the foot of the Porcupine Glacier. The Porcupine, in turn, flows into the Stikine River.

Access by air is available from either Edmonton or Vancouver to Watson Lake or Dease Lake on commercial scheduled flights. From there, charter aircraft can be taken to Eddontenajon where a charter helicopter may be flown to the property. An alternative method for getting supplies to the property exists by use of a barge from Wrangell, Alaska to the mouth of the Anuk River from which an eight mile helicopter trip gains access to the property.

The property is plagued with steep slopes which are covered in dense, high tag alder. Outcrop exposure is poor except along First and Second Split Creeks. These conditions make exploration work on the property difficult and expensive.

Economic Considerations

The AS claims are set in a remote and rugged part of north-western British Columbia. Road access is at present 45 air miles distant. However, with future development in the Galore Creek Camp, seven miles to the north, road access to the area may be developed.

C. EXPLORATION

Linecutting

From August 1 to 8, 1976, four men were employed to cut 6.73 miles of line. These lines were compassed, chained and marked with pickets at 200 foot intervals. The lines were put in at a bearing of 150 degrees and a baseline at 60 degrees bisects the grid. Seven lines were cut and the lines were spaced 800 feet apart. The grid location and configuration is shown on a one inch to 500 foot map at the back of this report.

Geochemical Survey

From August 8 to 15, 1976 two men undertook geochemical soil sampling of the grid on the AS claims. The lines were sampled at 200 foot intervals and 143 samples were obtained. The soil samples were taken from the B soil horizon with a plastic scoop and transferred in kraft paper sample bags. The sample sights are marked by pickets which are labelled with the station, line and sample numbers. The samples were shipped to Chemex Labs. in North Vancouver where they were analysed for copper by the following method:

1. Samples are sorted, recorded and dried at 60 degrees centigrade.
2. Dried samples are sieved to minus 80 mesh fraction with a nylon and stainless steel sieve.
3. 0.5 gram of minus 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 (approximately 4 hours).
4. Digested samples are diluted to 25 ml volume with demineralized H₂O and mixed thoroughly. Solutions are settled until clear.
5. Copper was analysed in aqueous solution with Techtron A-A-3 Atomic Absorption Unit - detection limit in soils for copper being 1 ppm.

The sample locations and analysis results are plotted on one inch to 500 foot maps included at the back of this report.

D. DISCUSSION OF RESULTS

The geochemical survey on the AS claims was designed to test areas peripheral to previous exploration areas and the boundaries of the intrusive body as well as to retest the intrusive for correlative purposes. It was felt that previous exploration programs had failed to fully evaluate the property for porphyry copper type mineralization. On the basis of alteration assemblages and geochemical anomalies defined in previous work, it seemed apparent that a large alteration halo about the intrusive body might hold a potential for copper mineralization, and this potential did not appear to have been fully tested.

By the use of soil geochemical sampling, it was hoped that new target areas for further exploration work could be defined and that previously defined anomalies could be confirmed and expanded.

Four anomalies were defined by the 1976 soil sampling on the AS claims. The first occurs at 18 N on line 48 E. Only one sample defines this anomaly which occurs in an area of reasonable outcrop exposure near the bank of Second Split Creek. Chalcopyrite mineralization in altered intrusive has been observed in scattered, minor amounts in this area and it is concluded that this anomaly is not worthy of further consideration.

The second anomaly is also due to a one sample source, therefore limiting an interpretation of the extent of the anomaly. This anomaly, at line 40 E and 10 N, appears to be relatively isolated, however, and does not warrant further work.

A third anomaly, at line 32 E and 22 S, has an apparent strike length along contour of between 400 and 800 feet and is open to the northeast. This soil geochemical anomaly appears to be close to source and may be relateable to a part of the fourth anomaly, described below.

The fourth and most significant, anomaly occurs between 14 S on lines 0, 8, 16, and 24 east and 22 N on lines 0 and 8 east. A large part of the anomaly appears to occur in transported overburden and this area lies approximately between 4 S and 14 S on lines 0, 8, 16 and 24 E. This transported overburden is in the form of fluvial material and the distance from source is estimated to be in the order of a few thousand feet. It appears that there may be some relationship between at least a part of the transported anomaly and the anomaly at 22 S on line 40 E. This would assume a movement of material both down slope and down valley in the order of one to three thousand feet from the latter anomalous site.

The rest of this large anomaly lies on the north side of Split Creek between 4 S and 15 N on line 0 E. This part of the anomaly appears to be close to source and is open to the west and northwest. Moderate amounts of disseminated and fracture controlled chalcopyrite have been observed along First Split Creek which runs sub-parallel to the northeast of line 0 E. High copper values in the soil at 6 S and 8 S on line 0 E occur in transported overburden and although they seem to correspond well with high values up-slope from the site, it must be concluded that direct relationships cannot be assumed. If this transported overburden was deposited by down-slope moving material from the area of First Split Creek, then these values would be explained by the mineralization in that area. If, however, the material was derived up-valley, then no source is apparent.

Other minor anomalies were delineated by the grid sampling but these are too small and weak to warrant discussion.

From previous sampling it is known that a soil geochemical anomaly extends parallel to topographic contour just to the north of the 1976 grid. This anomaly apparently correlates to the anomalous values at 20 N on line 8 E and would constitute a small extension to the north-east of the large anomaly on line O E.

The results of the 1976 soil geochemical survey indicate that mineralization extends to the west-northwest of First Split Creek, beyond the assumed periphery of the northwest oriented intrusive body. This is a previously unexplored area and therefore delineates a new potential for porphyry copper mineralization in this direction.

The anomalies defined on the southeastern slopes of Split Creek appear to conform well with the large anomaly on the north end of line O E but the presence of transported overburden which correlates well with the outline of the anomaly casts a doubt as to the reliability of equating the two areas to a continuous zone of subsurface mineralization. Further work is needed to better define the anomalies on the western end of the grid on both sides of Split Creek.

E. CONCLUSIONS

1. A 2,000 foot long geochemical copper anomaly was found to occur along the northwestern side of First Split Creek and appears to correlate with a previously known anomaly to the northeast of the northerly end of First Split Creek.
2. This large anomaly is open in a westerly direction and supports the premise that new zones of mineralization can be found in zones peripheral to and away from the assumed contact of the intrusive body, in an area which was previously unexplored.
3. A large anomaly on the southern side of Split Creek appears to conform to the limits of an area underlain by transported overburden and it is believed that the source of the anomalous metal concentrations are due, at least in part, to smaller anomalies in locally derived soils up-slope and up-valley in an easterly direction from this area.
4. A small, poorly defined anomaly occurs to the northeast of Second Split Creek indicating subsurface mineralization beyond the assumed contact of the intrusive body. This anomaly, in part, corresponds to an area of erratic concentrations of chalcopyrite mineralization and is not considered to be overly significant.

5. The objectives of the 1976 were met in that an extension of geochemical anomalies to the west of First Split Creek was found indicating and supporting the premise that previous exploration failed to fully test areas peripheral to the intrusive.
6. The program also aided in defining problems due to transported overburden cover on the property indicating that great care must be taken in the interpretation and use of geochemical data.
7. The survey failed to fully delimit geochemically anomalous zones which are if significant size and magnitude to merit further exploration work.

F. RECOMMENDATIONS

In view of the fact that the 1976 geochemical survey indicates, but does not fully delimit, an area of potential mineralization peripheral to both the intrusive body and areas of previous exploration, and that the anomaly is of significant length and magnitude, it is recommended that a program involving further geochemical sampling and geological mapping be carried out in 1977.

This program would entail:

1. The cutting and sampling of three lines spaced 800 feet apart to the west of line O E, and extending to 30 N and 24 S with a sample interval of 200 feet.
2. The south end of line 40 E should be sampled.
3. An effort should be made to complete the sampling at the north end of line 40 E and to extend line 48 E for 800 feet north.
4. The grid should be mapped by a geologist to better define the overburden cover and to note and define any areas of rubble, talus or outcrop uncovered by linecutting.

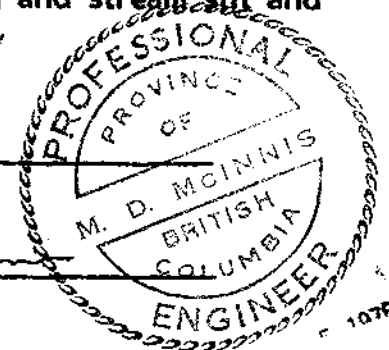
This program would serve to outline the anomalous zone at the west end of the grid in terms of defining an area of great enough extent to contain a potentially economic zone of mineralization. It would also serve to better define areas of possibly hidden anomalies in areas of transported overburden cover. In this respect it might be advisable to carry out a limited amount of soil profile testing and stream silt and seep sampling.

REPORT BY:


G. L. Garratt

UNDER THE SUPERVISION OF:


M. D. McInnis



APPENDIX I

STATEMENTS OF QUALIFICATION

STATEMENT OF QUALIFICATIONS

I Glen L. Garratt, am a qualified Geologist having graduated from the University of British Columbia in 1972 with a Bachelor of Science degree majoring in Geology. I have worked in the mineral exploration industry in British Columbia since 1969 and am presently employed by Great Plains Development Company of Canada, Ltd., as a geologist.

A handwritten signature in cursive script, appearing to read "G. L. Garratt".

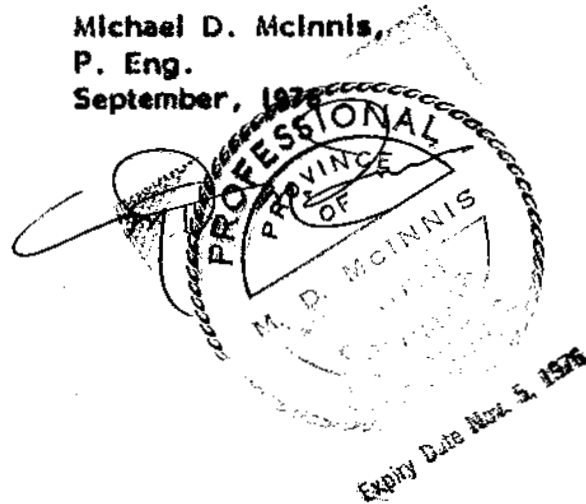
**G. L. Garratt
September, 1976**

STATEMENT OF QUALIFICATIONS

I, Michael D. McInnis, with residence at 6550 Silver Spring Way, N.W. in the city of Calgary, Alberta, declare

1. that I graduated from the University of British Columbia in 1969 with an Honours B.Sc., in geology,
2. that since graduation I have been employed as an exploration geologist in British Columbia, Yukon and Arctic Islands,
3. that I am presently Regional Geologist for Great Plains Development Company of Canada, Ltd.,
4. that I have successfully passed the exams necessary for entrance into the Professional Engineers Society of B.C. and have received membership in that society.

Michael D. McInnis,
P. Eng.
September, 1978



APPENDIX II: STATEMENT OF EXPENDITURES

Salaries: 2 men X 7 days @ \$45/man/day	\$ 630.00
Linecutting: 6.73 line miles @ \$170.00/line mile	\$ 1,144.10
Helicopter Charter: 6.1 hours @ \$360.00/hour	\$ 2,196.00
Food supplies (6 men for 15 days = 90 man days @ \$11/man/day)	\$ 990.00
Travel and expenses: 2 men @ \$280 round trip	\$ 560.00
Radio rental: (pro-rated) \$156.16/Month	\$ 78.08
 Sub Total:	 \$ 5,598.18
Overhead @ 10%	\$ 559.82
 TOTAL EXPENDITURES:	 \$ 6,158.00

APPENDIX III: CREW BREAKDOWN AND CONTRACTOR

Helicopter Charter:	Okanagan Helicopters Ltd.
Linecutting:	Martinson Linecutting and Staking, Powell River, B.C.
Geochemical Sampling:	R. Durfeld M. Mawer D. Good T. Bojczyszyn
Supervision:	M. D. McInnis



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

Leslie

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Norcen Energy Resources
 Mineral Exploration
 715 - 5th Ave., S. W.
 Calgary, Alta.

CERTIFICATE NO. 38674
 INVOICE NO. 18373
 RECEIVED Sept. 23/76
 ANALYSED Sept. 27/76

ATTN: A.S. Samples from R. Durfeld

SAMPLE NO. :	PPM Copper
BL 8E	56
16E	154
BL 32E	160
CE 0N	521
2	295
4	138
6	308
8	442
10	241
12	313
14	587
15N	540
4S	1920
6	2080
8	2610
14	1200
16	313
18	108
20	186
22	270
OE 24S	102
8E 2N	41
4	46
6	74
8	28
10	66
12	104
14	72
16	63
18	98
20	>4000
22	613
24N	96
2S	80
4	222
10	278
12	434
14	68
16	42
8E 18S	82
Std.	106



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *H.P. [Signature]*



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 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO: Norcen Energy Resources
 Mineral Exploration
 715 5th Ave., S.W.
 Calgary, Alta.

ATTN: P2P 2X7 A.S. (Mr. R. Durfeld)

CERTIFICATE NO. 38675
 INVOICE NO. 18373
 RECEIVED Sept. 23/76
 ANALYSED Sept. 27/76

SAMPLE NO. :	PPM Copper
8E 20S	20
22	68
8E 24S	62
16E 2N	118
4	144
6	51
8	500
10	52
12	175
14	51
16	50
18	114
20	54
22	60
24N	86
6S	680
8	482
10	613
12	323
14	295
16	94
18	186
20	34
22	48
16E 24S	88
24E BL	392
2N	118
4	138
6	51
8	20
10	18
12	450
14	40
16	18
18	392
20N	191
4S	22
6	7
8	148
24E 10S	262
Std.	104



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *[Signature]*



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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO: Norcen Energy Resources
 Mineral Exploration
 715 - 5th Ave., S. W.
 Calgary, Alta.

CERTIFICATE NO. 38676

INVOICE NO. 18373

RECEIVED Sept. 23/76

ATTN: A.S Samples from R. Durfeld

ANALYSED Sept. 27/76

SAMPLE NO. :	PPM
	Copper
24E 12S	203
14	232
16	304
18	54
20	286
22	48
24E 24S	76
32E 2N	98
4	56
6	170
8	54
10	156
12	114
14	66
16	136
18	304
20	108
22	128
23+40N	215
2S	54
4	28
6	72
8	120
10	16
12	122
14	18
16	31
18	186
20	840
22	>4000
32E 24S	54
40E 2N	24
4	138
6	248
8	34
9+85	278
40E 10N	1000
48E BL	76
1N	126
2	38
48E 4N	34
Std.	104



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *[Signature]*



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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO: Norcen Energy Resources
 Mineral Exploration
 715 5th Ave., S. W.
 Calgary

ATTN: A.S. (R. Durfeld)

CERTIFICATE NO. 38677

INVOICE NO. 18373

RECEIVED Sept. 23/76

ANALYSED Sept. 27/76

SAMPLE NO. :	PPM Copper
48E 6N	10
8	31
10	156
12	33
14	191
16	1040
18	134
20N	1560
1S	295
2	12
3	30
4	24
6	28
7	13
8	18
9	60
10	141
11	63
12	26
13	222
14	31
48E 15S	90



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: _____

[Handwritten Signature]

APPENDIX IV

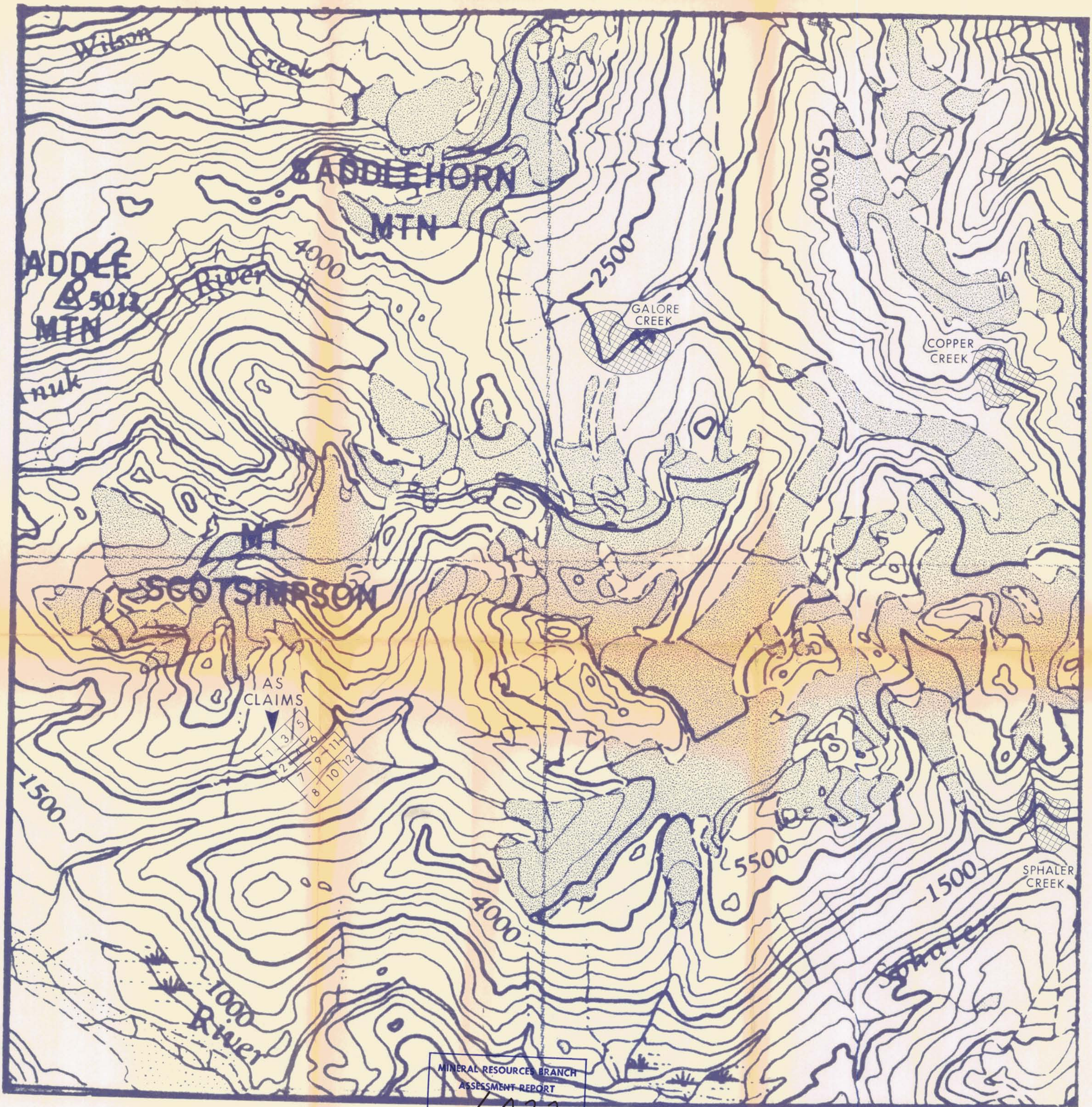
GEOCHEMICAL ANALYSES RESULTS

APPENDIX III

CREW BREAKDOWN AND CONTRACTOR

APPENDIX II

STATEMENT OF EXPENDITURES



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6022
MAP NO. #1

LEGEND

-  GLACIER
-  OTHER PROPERTIES



GREAT PLAINS DEVELOPMENT COMPANY OF CANADA, LTD.
BRITISH COLUMBIA

A S CLAIM GROUP

SCALE - 1:50,000

R. VISAGIE *M. McInnis* SEPT., 1974

6022



LEGEND

- Grid Lines with Stations
- 630 Cu Value in Soil (ppm)
- - - Approximate Outline of Transported Overburden
- Creek

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. 6022
 MAP NO. #2

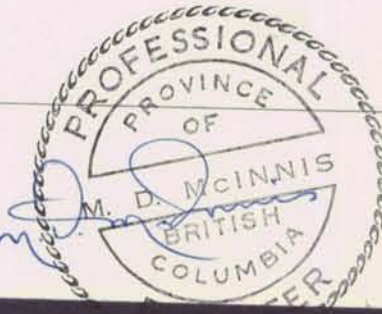
GREAT PLAINS DEVELOPMENT COMPANY
 OF CANADA, LTD.

AS CLAIMS-SPLIT CREEK
 CU-GEOCHEMISTRY - 1976

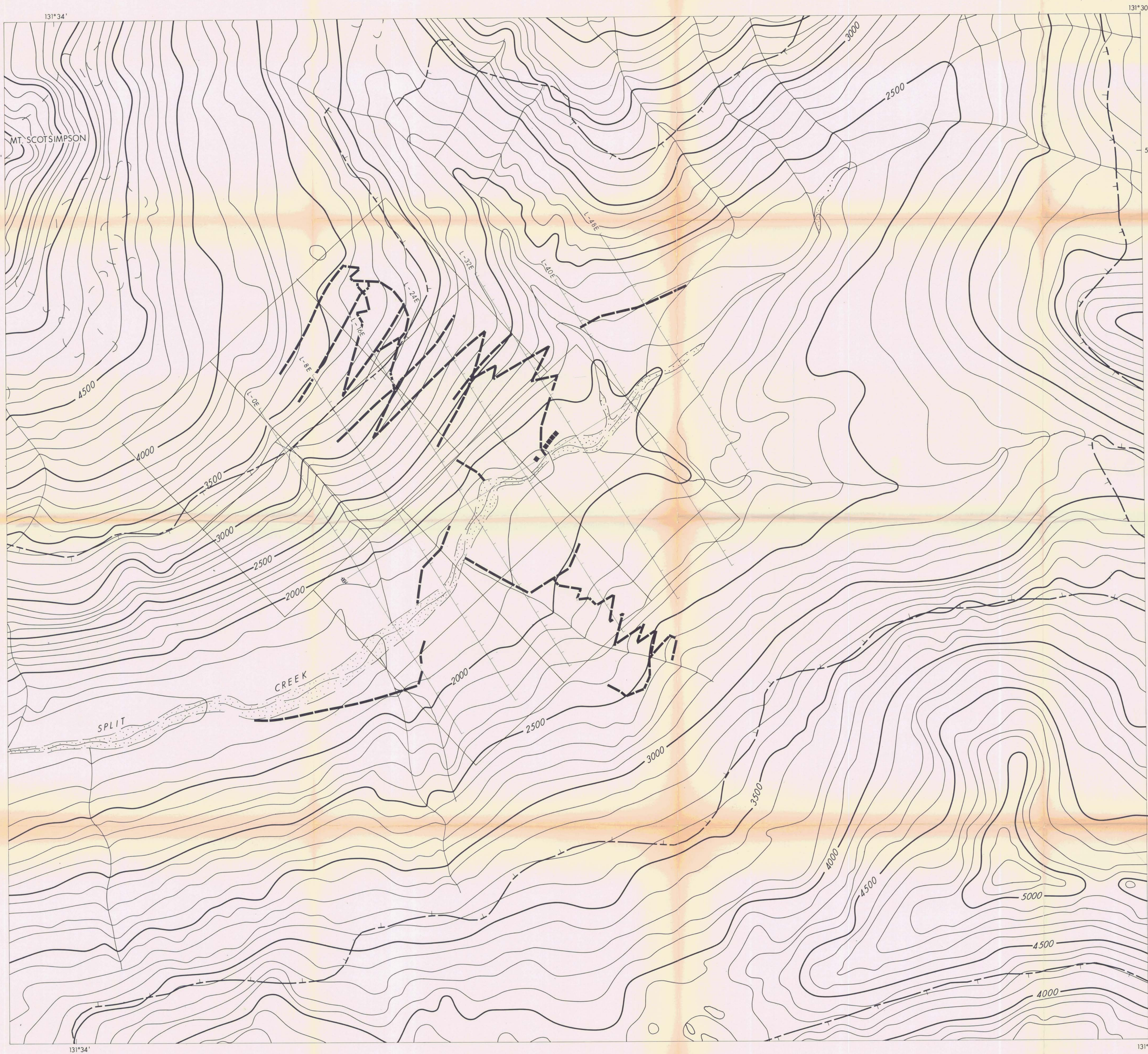


NTS: 104 G/4
 LIARD M.D.




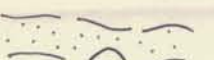

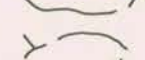
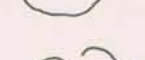
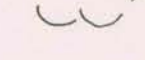
SEPTEMBER 1976



6022



LEGEND

-  Loose Surface Road
-  House, Barn
-  Stream, Shoreline Indefinite
-  Dry Creek Bed with Channels
-  Wooded Area
-  Cleared Area
-  Snowfields, Glaciers
-  Claim Boundary

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
No. **6022**
MAP NO. **#3**



 DEVELOPMENT COMPANY
OF CANADA, LTD.

AS CLAIMS-SPLIT CREEK

CU-GEOCHEMISTRY GRID - 1976



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