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## KERR ADDISON MINES LIMITED

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JAN 28 1974

To G. M. Hogg From F. Chow  
 Subject DEWAR CREEK PROJECT, B. C. GEOCHEM RESEARCH AND INVESTIGATION Date January 25, 1974

W.J.  
 D.M.H.  
 G.M.H.  
 M.D.R.  
 I.D.B.  
 R.D.S.  
 G.R.  
 T.W.B.

E.C.I.

Mr. John H. Hajek, exploration geochemist has been retained to consult on the geochemistry of the Doc and Nine Lake groups of claims. Bill Sirola wanted an outside (expert) opinion on the cause of the geochemical anomalies and the significance of the geochemically high metal values within the region. The study encompasses the area from the Nine Lake claims to the Doc claims, a distance of about 12 miles. Bill Sirola had mentioned the study to you earlier this week on the phone.

The geochemical study of this project area will hopefully point to a promising exploration target, or at least help in the decision making regarding the future of the properties.

We shall also gain fresh knowledge on the application of geochemical surveys and the interpretation of results.

I am enclosing Mr. Hajek's preliminary report to you. We have followed through with his recommendation regarding trace element analyses. The results have just been plotted. Mr. Hajek will provide us with his final assessment of the geochemical results next week.

The area he favors as having the greatest mineral potential is the Nine Creek - Greenland Creek region. This is based on metal values, metal ratios, metal zoning, plus geological environment and structural breaks.

Enclosed is a copy of the above mentioned map area which Mr. Hajek has labeled Zn rich area. I have superimposed upon the map the main structural and geological features. The dome, outlined by heavy dash lines and colored yellow, in the centre of the map area is interpreted from bedding attitudes obtained by field mapping.

My report on the Dewar Creek Project, 1973 will be mailed to you next Monday when Bill returns from his field trip.



F. Chow

FC/rb

Enclosures

DEWAR CREEK

Geochemical Assessment

of

Work Done from 1971 to January 1974.

Summary. The Doc claims' assessment would be clarified by the proposed analyses on page 5. Unfortunately at the present, they are not of commercial importance.

The Greenland Creek area is a potential target for an economic ore search indicated by ground E.M., aeromagnetism, geological structure and its location within a large zinc geochemically high area with zones of copper and ~~zinc~~ enrichment.  
*Tungstene*

Introduction

The regional survey of the Doctor Creek drainage system indicates a distinct N-S zoning between lead and zinc as follows:

- a. to the north, a 40 square mile lead enriched area with values over 1,000 ppm includes known galena or lead and silver showings;
- b. to the south, a 20 square mile zinc enriched area with values over 700 ppm includes some distinct copper, tungsten, lead and tin local trends.

The two main groups (Doc and Nine Lake claims) cover most of the anomalous zones. However, in the vicinity of the Doctor Peak, samples indicating medium degrees of dispersion of lead, copper and zinc are recommended for additional testing ( pp. 5-6).

### Doctor Claim Group

A large S-N lead dispersion, indicated by 20% population of 476 samples being greater than 400 ppm, covering the original 6 Doc claims, is the zone of prime interest.

Within the lower lead zone, a central core is enriched in copper (greater than 100 ppm) and zinc (greater than 200 ppm), which suggests the possible proximity of concealed mineralization. In this regard I propose the following explanations for the metal occurrence in this low ground:

- a. Mechanical deposition,
- b. Ground water movement merging there by hydrostatic pressure,
- c. Lead being mechanically moved but copper and zinc ground-water deposited,
- d. Mineralization nearby at depth.

### Conclusion:

I recommend the analysis of the selected samples listed on page 5 for cadmium, gold, silver, nickel, cobalt, and molybdenum in order to establish a firm basis for the final evaluation. The comparison between cold nitric acid and total extraction for lead, copper and zinc in the lower section is also felt to be a present necessity.

### Mc and Nine Lake Claim Group

The area is favourable for ore deposition as indicated by the complex geological structure, and by anomalous zinc, tungsten and copper zones. The regional survey outlines the Greenland Creek and the Nine Lake Creek as anomalous for zinc (stream sediments greater

than 700 ppm), tungsten (stream sediments greater than 400 ppm) and copper (greater than 300 ppm). The partial claim sampling delineates several metal zones which indicate possible concealed mineralization.

The present geochemical trends are as follows:

a. A major tungsten zone of enrichment extends from Nine Lake to Greenland Creek over an area of 5000 feet by 3600 feet, with values ranging from 1,300 ppm to 300 ppm.

b. South of Greenland Creek, a large zinc anomalous zone extends over an area of 6000 feet by 2000 feet with values ranging from 1,400 ppm to 400 ppm, of which 5% population is over 800 ppm, overlapping the tungsten zone and the local high copper values. Copper and tungsten in soils reflect mainly the vicinity of rock outcrops. Low metal value is due to a blanket effect from the valley drift or from the swamps and vegetation cover.

c. North of Greenland Creek there appears to be a fan-like tungsten-zinc trend originating in the two cirques above 7500 feet, where tin was reported in 2 composites. However, this trend may be distorted due to the incomplete sampling of the ground to the east.

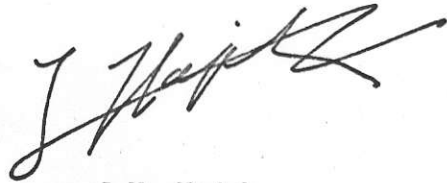
no assay  
show N.L.  
J. Chou

d. The evidence of similar dispersion trends of tungsten and zinc also exist at the batholith contact, making this area attractive for possible ore deposits.

Conclusion

At first it is necessary to complete the present geochemical coverage with emphasis on rock geochemistry and its relation to changes in degree of metamorphism. I recommend a detailed structural study as being a main guide to a potential ore formation. At the present time, the Greenland fault could be part of a major shear zone unit. Unfortunately, the geochemistry is too extensive to be contained only in this structure. Therefore we have to assume the existence of several mineral zones which seem to be related to the pegmatite emplacement.

I recommend the analysis of the samples listed on page 6 for several trace elements in order to clarify the zoning and to complete the metal assessment of this claim group.

A handwritten signature in black ink, appearing to read 'J. Hajek', with a stylized flourish at the end.

J.H. Hajek,  
Exploration Geochemist.

Samples to be Geochemically Analysed

## 1. Regional Dispersion for Au, Ag, Cd and Mo.

## a. Doctor Peak North

3 - 1048	3 - 10 - 968L
- 1049	-1018L
- 1065	
- 1069	

## b) Doctor Peak East

3 - 10 - 1018 (see above).

## c) Doctor Peak N-W

3 - 9 series:	878
	882
	886
	937
	1001

## 2. Doctor Group

## a. For Au, Ag, Cd, Ni and Co.

Diorite: Dr - 2, Dr - 9.

1 - 9 - 521

<sup>13</sup> - 5221 - ~~14~~ - 8393 - ~~12~~ - 1037

" 1039

1067

1069

1074

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1103<sup>3-12</sup> 

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1200

1211

1417

1420

<sup>3-16</sup> 1421

1422

4B - 69

64

~~6~~ - 625

6-6 637

642

b. Cold 2N HNO<sub>3</sub> Extraction for Pb, Cu, Zn (leached for 2 hours with 1/2 hour interval shaking)<sup>16</sup>  
3 - ~~12~~ - 1417

1418

1420

1421

1422

## 3. Mc and Nine Lake Group

## a. Individual Tin analysis on composite No. 1 and 2.

6 - 5 - 510	6 - 5 - 544
511	545
512	546
513	547
514	556

## b. Analysis for Mo, Au, Ag, Cd, Ni and Co.

1 - 9 - 513	6 - 3 - 190	6 - 3 - 345B
3 - 15 - 1291	188	342
6 - 1 - 108	226	356
75B	229	351
6 - 2 - 137	228	347
169	206	346
123	208	367
124	246	366
155	308	364
157	317	362
3 - 15 - 1185	326B	360
1275	181	369 (A3)
1282	344B	
6 - 4 - 263		
260	6 - 5 - 519	1 - 9 - 521
288	537	522
258	508	
255	512	1 - <sup>13</sup> 14 - 839
249	513	
246	534	
243	537	
240	560	
238	561	
233	562	
273	542	
276	543	
278	563	
280	546	
281	582	
283	578	
287	579	
289	577	
290	576	
292	575	
293	571	
294	548	
295		
402		
404		
405		
406		
407		
434		
431		
430		

GREENLAND CREEK PROGRAMME

by

ZENON GEOLOGICAL ASSOCIATES

Location: Greenland Creek, B.C.

Time: 2 weeks

Cost: \$18,000

ZGA proposes the following approach:

Delineate areas favourable to ore deposition by relating mineral zoning, metamorphic zoning, and closely defined structure (shearing, fracturing and folding). In addition to the diorite sills, structures including an apparent trend of pegmatite emplacement and structural intersections, are the most probable locations for deposition in the Greenland embayment.

We propose to complete the soil geochemistry over the existing claims and to take profiles and seepage samples in the marshy ground. A complete rock geochemistry program in the area of outcrops will be done with samples taken for a petrographic study.



50°00'

POTENTIAL?

POTENTIAL?

POTENTIAL?

POTENTIAL (unknown)

LEUCO Crz. MONZONITE

PORPHYRITIC  
QUARTZ  
MONZONITE

Zn rich AREA

- $\geq 201$  ppm Zn
- ⊙  $\geq 401$  " "
- ⊗  $\geq 700$  " "
- $\geq 51$  ppm Pb
- ⊙  $\geq 101$  " "
- ⊗  $\geq 1001$  " "

Nine Lake

Nine Creek

ADIRIDGE  
QUARTZITES

Porphy. Ore. MINZ.

Creek

SKOOKUMCHUCK

Termin. copy

KERR ADDISON MINES LTD.	
DEWAR CREEK PROJECT, B.C.	
NINE LAKE GROUP AREA	
MAIN STRUCTURAL & GEOLOGICAL FEATURES	
SCALE: 1" = 1/2 MI.	
NTS 82 F/16	MAP NO.
DRAWN BY: F. CHOW	DATE DRAWN: JAN. 22, 1974

