

GEOLOGICAL REPORT

ON THE

TROIS CLAIMS

of

VESTOR EXPLORATIONS LTD.

SUMMIT LAKE AREA, Y.T. - N.W.T.

TROIS 1 - 16 Y71774-Y71789

Latitude 62°32'N - Longitude 129°27'W

Claim Sheet 105-1-11

by

N. Badham

August, 1973

INTRODUCTION

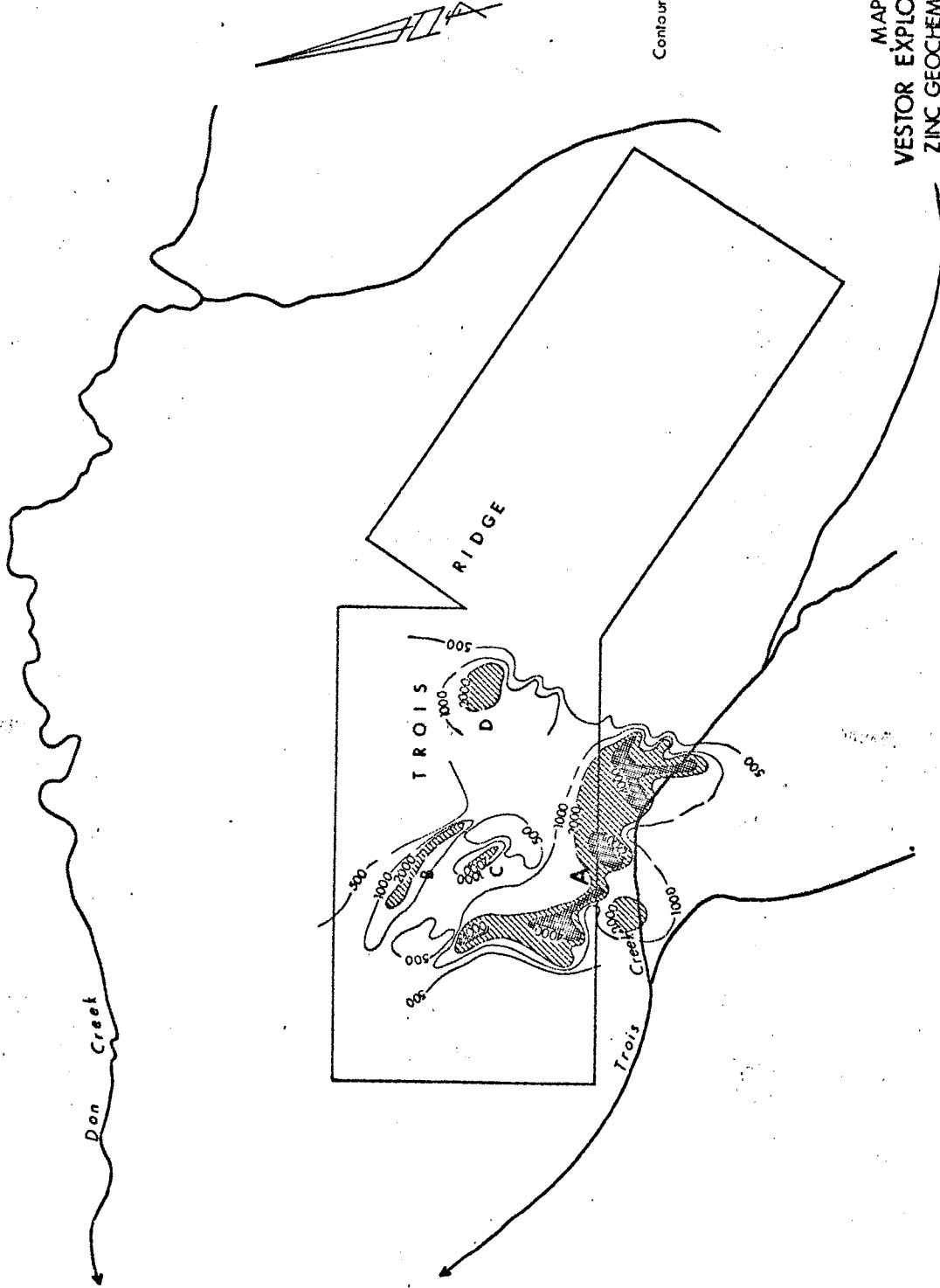
The Trois claims were examined three times during the course of the season. The first examination consisted of reconnaissance geological mapping. The second examination consisted of further mapping and reconnaissance geochemical sampling. Highly anomalous geochemical values were obtained and this prompted the third examination. A large and very significant geochemical anomaly has now been delineated on these claims and the most part of this anomaly coincides with the upper part of the favourable graphitic shale unit.

GEOLOGY

Apart from the ridge top there is very little outcrop on the claims, however the slopes of the ridge are covered with rock fragments which are obviously not far removed from their point of origin. A few traverses were run on the ridge to the east of the claims where outcrop is more abundant. Using the observations of all of the above and considering the rather simple structure in this area, it was quite easy to deduce the general geology of the claims. (Map 1)

The wavy banded limestone was not observed on the claims but it does outcrop north of Don Creek on the Placer claims which lie to the north of the Trois. This limestone should shallowly underlie the graphitic shale at Trois Creek.

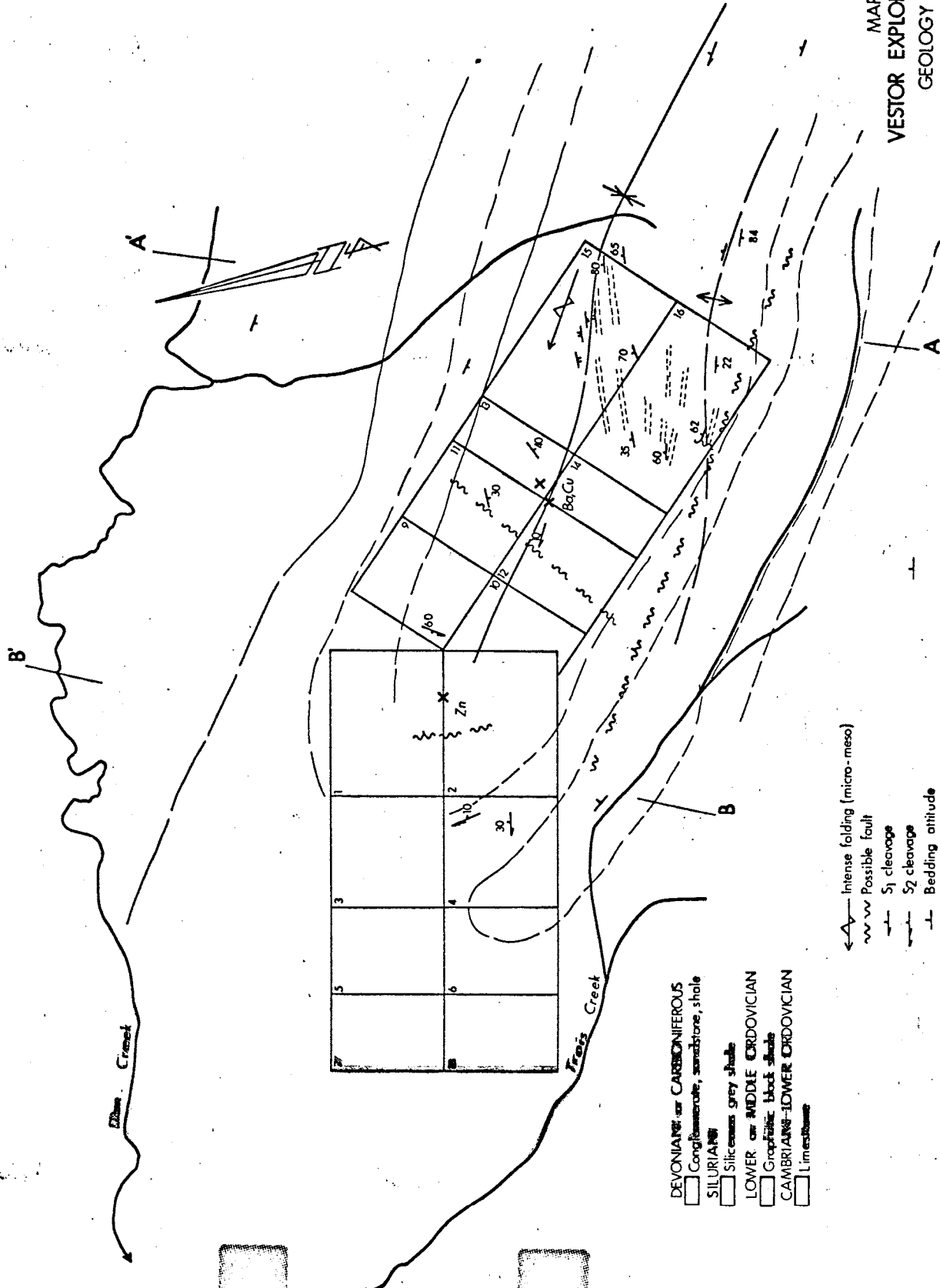
The lowest unit observed on the claims was the black graphitic shale (Ordovician). The top of this unit was observed in sporadic outcrop in Trois Creek. It is this unit which hosts the Placer mineralization to the southeast.



Contours: 500 ppm
 1000 ppm
 2000 ppm
 4000 ppm

MAP 2.
 VESTOR EXPLORATIONS LTD.
 ZINC GEOCHEM CONTOUR MAP

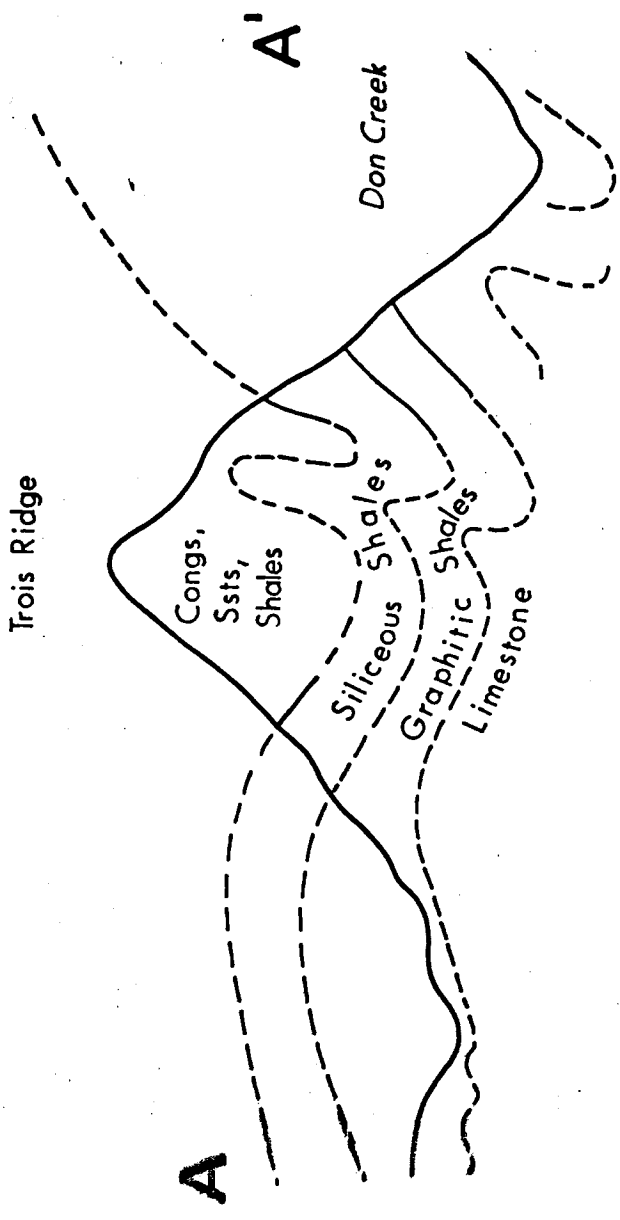
TROIS Claims
 Summit Lake Area, Yukon
 0 500 1000 1500
 SCALE: 1" = 1000 FEET
 Oct. 1973



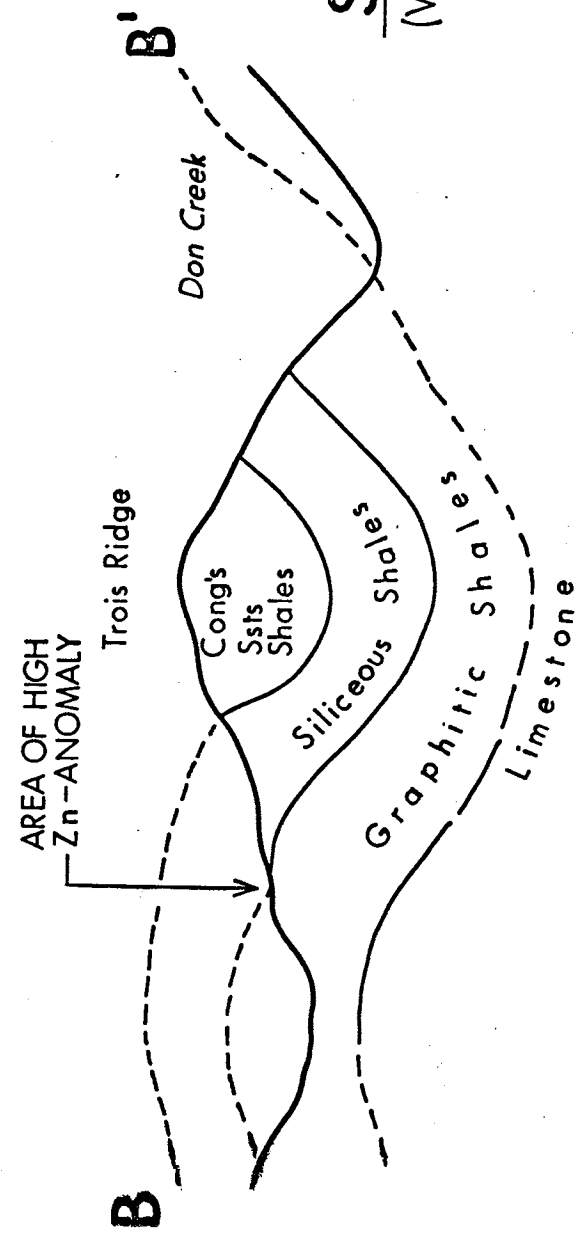
DEVONIAN or CARBONIFEROUS
 Conglomerate, sandstone, shale
 SILURIAN
 Siliceous grey shale
 LOWER or MIDDLE ORDOVICIAN
 Graphitic black shale
 CAMBRIAN-LOWER ORDOVICIAN
 Limestone

← Intense folding (micro-meso)
 ~~~~~ Possible fault  
 S<sub>1</sub> cleavage  
 S<sub>2</sub> cleavage  
 Bedding attitude  
 X Mineral occurrence

MAP 1.  
**VESTOR EXPLORATIONS LTD.**  
 GEOLOGY OF THE  
 TROIS CLAIMS  
 Summit Lake Area, Yukon  
 SCALE 0 500 1000 1500 FEET  
 Goble, Kenyon, Bedham  
 Sept. 1973.



**SKETCH SECTION A-A'**  
 (East end Trois Ridge) TROIS-Claims  
 (refer to Map 1)



**SKETCH SECTION B-B'**  
 (West end Trois Ridge) TROIS-Claims

FIG. 1.

The graphitic shale is overlain by the siltstone turbidite unit which is a sequence of grey siliceous shales, argillites and interbedded siltstones. The total thickness of this unit is about 200 feet on the Trois claims.

The top of Trois ridge comprises the conglomerate-sandstone-shale unit. Four distinct conglomerate units were observed near the top of the ridge. The bulk of the unit is composed of black, non graphitic shale with some sandstone and siltstone.

The overall structure of the ridge underlying the Trois claims is synclinal. The axis is parallel to the crest of the ridge and the plunge is very gentle to the northwest.

No major faults were observed on the claims although some minor faulting was mapped. These faults were largely inferred from lineations on the air photos.

#### MINERAL OCCURRENCES

During the course of staking, a sample was taken from outcrop on the ridge on the claim line between Trois #1 and #2. This sample assayed 1.7% zinc. No zinc mineral was observed in the sample, which is loosely described as a breccia with quartz and shale fragments, partially filled with quartz and quite rusty on the weathered surface.

Further to the east on the same ridge, were found some frost-heaved boulders of black shale which were malachite stained and which contained barite on the cleavage planes.

Although the third trip to the area was made with the knowledge of the first anomalous geochemical results, nothing was located in the region of the anomaly due to apparently deep overburden.

## GEOCHEMICAL PROGRAM

### Sampling and Laboratory Techniques

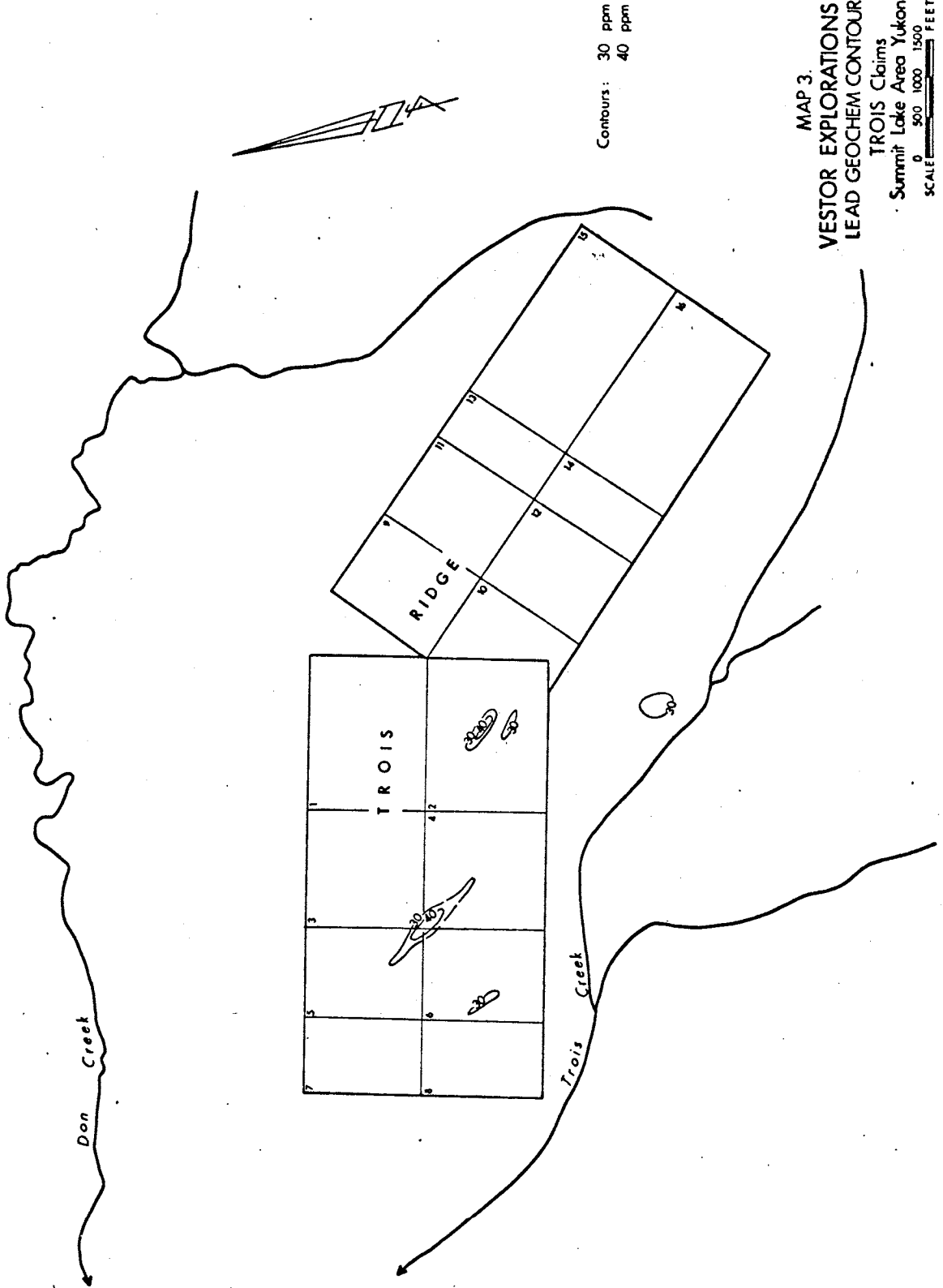
Soils were taken at an average depth of about 10 inches. The soils in this area are not well developed. Many have a high percentage of rock chips. Near the top of the ridge, rock chips comprised most of each sample. Organic content varies from less than 5% to no more than 40%.

In the laboratory, samples were dried and screened to minus 80 mesh. In the case of samples which were entirely rock chips, these were crushed and screened to the same mesh. The samples were digested in nitric-perchloric acid mixture. Lead, zinc and copper determinations were made by atomic absorption spectrometry. The values obtained are total values in lead, zinc and copper. The entire analytical operation was performed by Loring Laboratories of Calgary.

### Field Program

On the first trip to the claims, a single line of geochemical samples was taken along the base of Trois ridge, to the north of and roughly parallel to Trois Creek. These samples were taken at 200 foot intervals. Samples were taken in this area first, since it is underlain by the favourable graphitic shale unit.

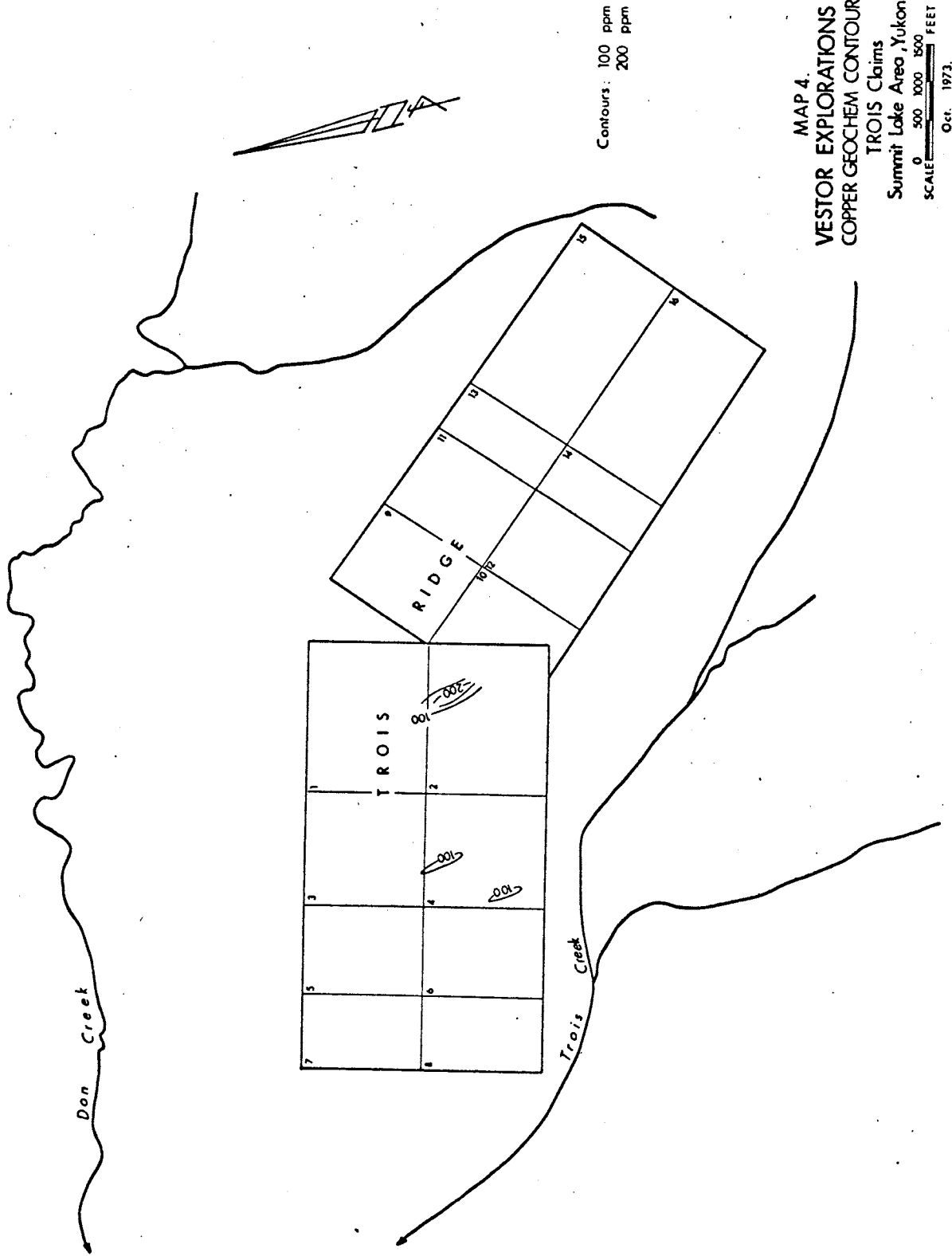
Highly anomalous zinc values were obtained over a considerable length of this sample line (see Maps 2 & 5). A second sampling program obtained samples at 100 foot spacings over three lines at right angles to this original line. Many of these samples were highly anomalous in zinc. The values were counted.



Contours: 30 ppm  
40 ppm

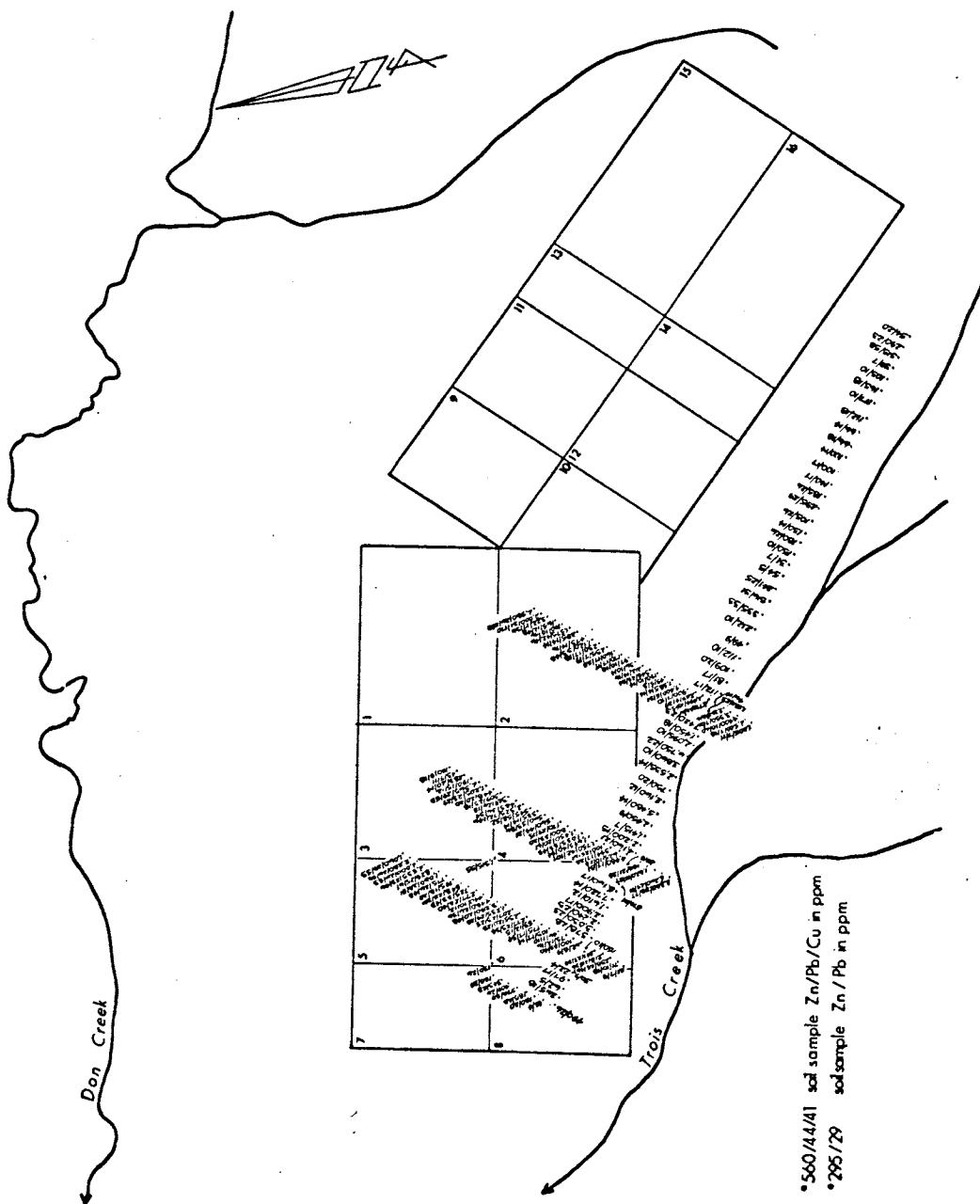
MAP 3.  
VESTOR EXPLORATIONS LTD.  
LEAD GEOCHEM CONTOUR MAP

TROIS Claims  
Summit Lake Area Yukon  
SCALE 0 500 1000 1500 FEET  
Oct. 1973



MAP 4.  
VESTOR EXPLORATIONS LTD.  
COPPER GEOCHEM CONTOUR MAP

TROIS Claims  
Summit Lake Area, Yukon  
SCALE 0 500 1000 1500 FEET  
Oct. 1973.



MAP 5.  
VESTOR EXPLORATIONS LTD  
GEOCHEM VALUES  
TROIS CLAIMS

Summit Lake Area, Yukon  
SCALE 0 500 1000 1500 FEET  
Oct. 1973.

• 560/44/41 soil sample Zn/Pb/Cu in ppm  
○ 295/79 soil sample Zn/Pb in ppm

## Results

The values in ppm of copper, lead and zinc are plotted on Map 5. Sample spacings were short but line spacings wide, so the geochemical program must still be considered a reconnaissance one. The values were contoured however and the contoured results are very significant.

Although some small areas of anomalous values were obtained, contoured lead and copper results show no significant anomalous trends (Maps 3 & 4). The zinc results yield very many anomalous areas when contoured, the anomalies exhibit strong and continuous trends.

Anomaly A, Map 2, is probably the most significant of the anomalies obtained on the claim group in that it is confined to an area of subcropping graphitic shale, the same unit which hosts the Placer mineralization to the southeast. Part of the anomaly is situated outside the boundary of the Trois claims, but allowing for some downhill migration of the anomaly (zinc is particularly vulnerable to migration), and the fact that the graphitic shales dip to the north and under the main body of the claims, any mineralization which may be causing the anomaly will, for the most part be contained within the claims.

The main part of the A anomaly is also coincident with the extension of a fault (Map 1) and occurs where this fault cuts the graphitic shale. This fault could also be a contributing factor to mineralization in this area. At this point it should be noted that although the Placer mineralization is confined to the black graphitic shale, it is also in part controlled or modified by the dominant NW-SE structure in the area.

The apparently sharp cut-off of anomaly A on the east may be false, in that the anomaly could continue off the claims to the southeast. No samples were taken in this region to prove or disprove this.

Anomalies B, C and D are all confined to the upper conglomerate-sandstone-shale unit. These anomalies are not thought to be so significant as anomaly A as they do not have the same strength or areal extent. They could be reflecting minor mineralization similar to that already found near the top of Trois Ridge.

### CONCLUSIONS

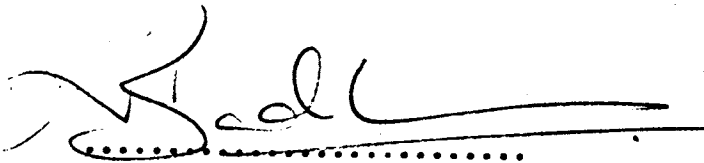
The geochemical values obtained are of obvious importance, particularly in the light of the geology of the claims. The claims clearly warrant further intensive examination. Since the chances are remote that the mineralization causing anomaly A will be found in outcrop, the geochemical results should be supplemented with closer sampling. Due to interference produced by graphitic units in most electrical surveys, geophysics may be of little use in delineating targets. The detailed geochemical survey will probably need be followed immediately by trenching or drilling.

J.P.N.Badham, B.Sc., Ph.D.(Geol.)

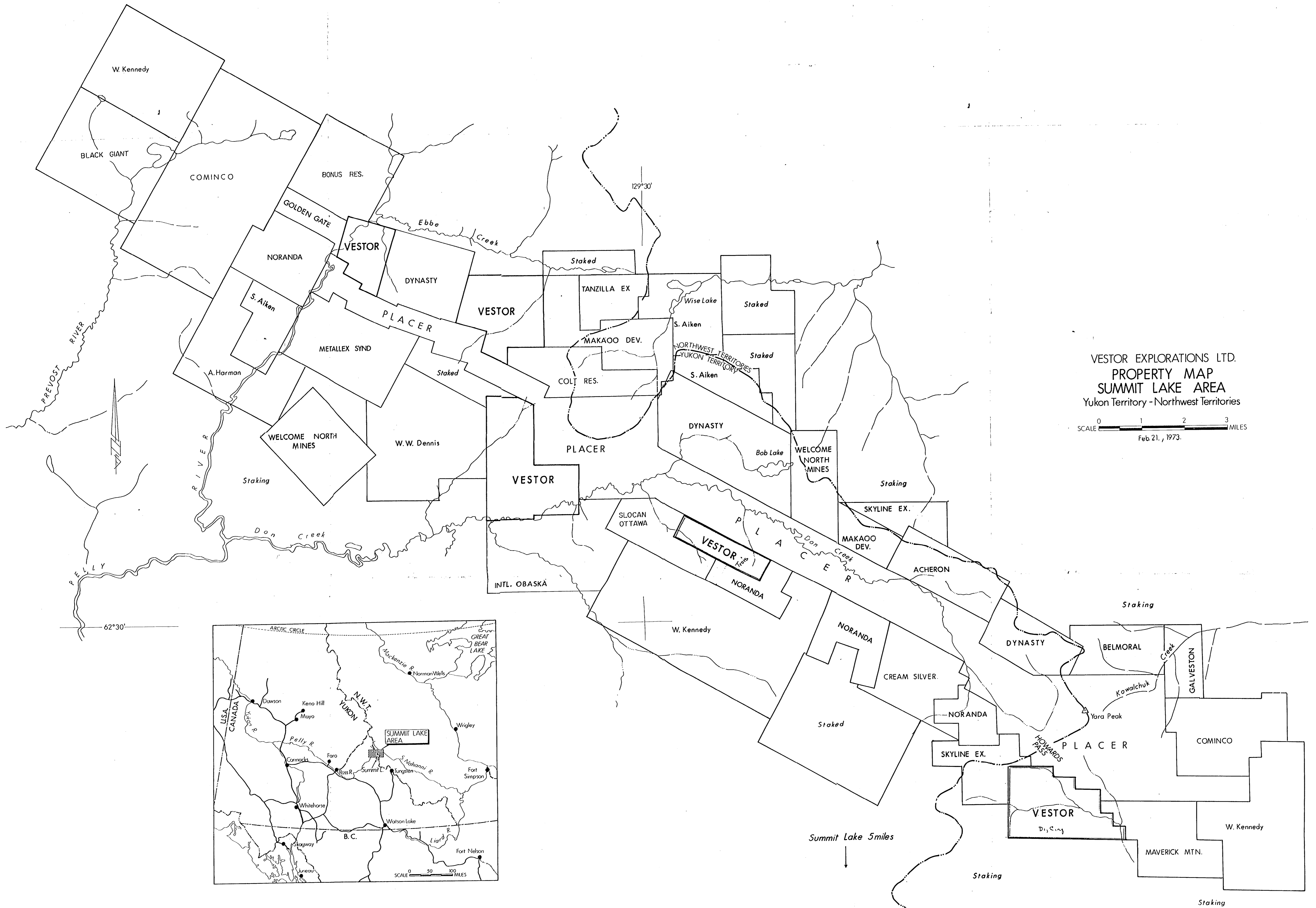
I, Nicholas Badham, of the City of Southampton, England, hereby declare:

1. That I am a graduate of the University of Oxford, England, with the degree of Bachelor of Arts (Honours Geology) 1969, and of the University of Alberta, with the degree of Doctor of Philosophy (Geology) 1973.
2. That I hold the position of Lecturer in Economic Geology at the University of Southampton, and also serve the mining industry as a Consulting Geologist.
3. That I have no interest, either direct or indirect in the properties described in this report, owned by Vestor Explorations Ltd. of Edmonton.
4. That this report is based upon sources of information cited and on personal knowledge of the properties, and of similar properties elsewhere in the Canadian Cordillera.

Dated at Southampton, this 8th day of April, 1974.

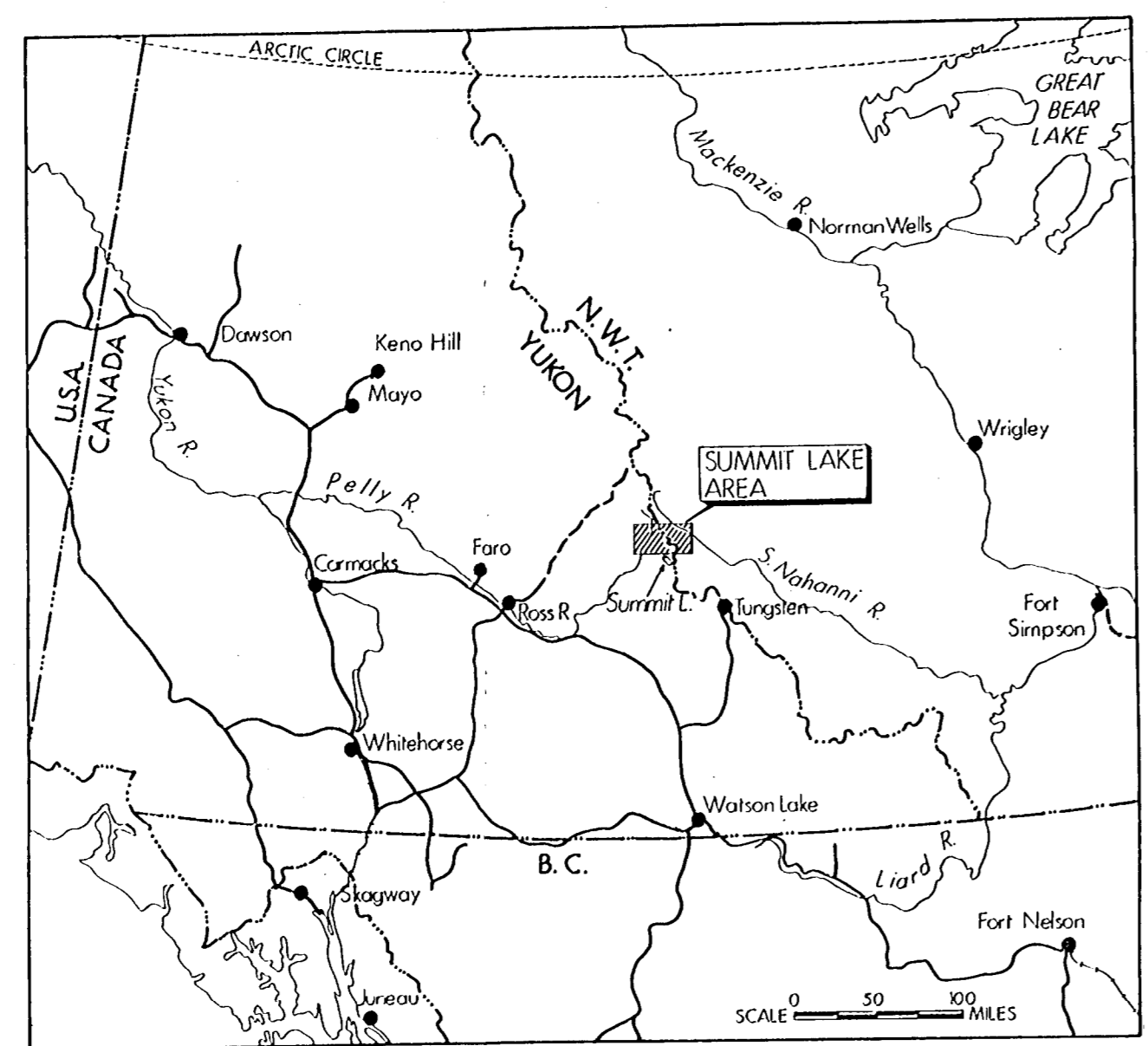
A handwritten signature in black ink, appearing to read 'N. Badham', written over a horizontal dotted line.

N. Badham, B.A., Ph.D.  
Consulting Geologist



VESTOR EXPLORATIONS LTD.  
 PROPERTY MAP  
 SUMMIT LAKE AREA  
 Yukon Territory - Northwest Territories

SCALE 0 1 2 3 MILES  
 Feb. 21, 1973.



Summit Lake 5 miles