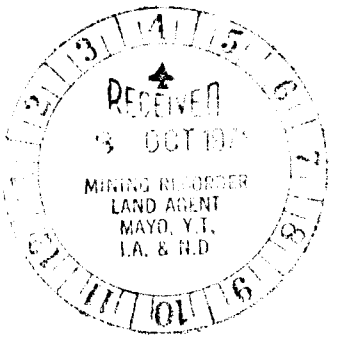
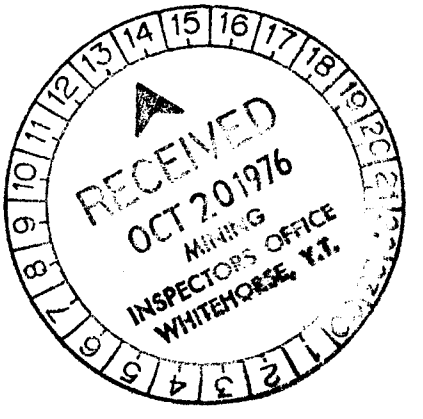

RECEIVED
MINING INSPECTOR
LAND AGENT
MAYO, Y.T.
I.A. & N.D


RECEIVED
OCT 20 1976
MINING
INSPECTORS OFFICE
WHITEHORSE, Y.T.

UMEX

UNION MINIERE EXPLORATIONS
AND MINING CORPORATION LIMITED

SUITE 200 - 4299 CANADA WAY
BURNABY, B.C. V5G 1H4

TELEPHONE 437-9491

ASSESSMENT REPORT

GEOCHEMICAL SOIL SURVEY

ON THE

LAST 1 - 8 MINERAL CLAIMS

(Record Nos. YA1124-YA1131)

in the

Mayo Mining District, Yukon

N.T.S. 116A/15

Latitude 64°51'N
Longitude 136°38'W

by

Colin V. Dyson, P.Eng.

Work Done: July 24 - July 30, 1976

Date: September 1976

Owner: Union Miniere Explorations and
Mining Corporation Limited

090137

Office of The [illegible] Mining Recorder
OCT 18 1976
WHITEHORSE
Yukon Territory

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

$ 800.00

W. D. Sinclair
for Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B.R. BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

CONTENTS

Appendices

Figures

ASSESSMENT REPORT

GEOCHEMICAL SOIL SURVEY ON THE LAST 1-8 MINERAL CLAIMS

INTRODUCTION

During the period July 24 to July 30, 1976, a geochemical soil survey was completed over the Last 1-8 mineral claims in the Mayo Mining District, Yukon. The claims are located approximately 50 miles east of Chapman Lake at latitude $64^{o}51'$N and longitude $136^{o}38'$W (Figure 1). They cover a northerly facing mountain cirque and adjacent ridges where elevations range from 4000 to 5000 feet. Access to the property was via helicopter from a base established at Mile 68 on the Dempster Highway, a distance of approximately 54 miles west of the claims.

The geochemical soil sampling was completed in the field by Mr. J. Verbeek and Mr. R. Joly under the supervision of Mr. D. Christie, B.Sc., geologist, who in turn was under the supervision of Mr. C.V. Dyson, P.Eng., who was on the property on July 24 to organize the survey and to study the general claim geology.

PROPERTY

Relevant details of the property are as follows:

Claim Name	Grant Numbers	Date Staked	Date Recorded
Last 1-8	YA1124-YA1131	August 26, 1975	August 28, 1975

The claims are owned by Union Miniere Exploration and Mining Corporation Limited for whom the surveys were performed.

GENERAL GEOLOGY

The claim area is underlain by a thick sequence of Proterozoic sediments[1] (G.S.C. Unit 1) which are described as consisting of mainly dark grey, grey-green, and black, thin bedded argillite, slate and phyllite; minor grey quartzite, orange-weathering dolomite, and conglomerate. The general strike of the sediments on the property is east-west with steep to vertical dips. The entire sequence has been intruded by a series of dioritic dykes of varying size, which mostly strike in northeast-southwest direction across the claims.

[1] Geological Survey of Canada, Map 1283A.

FIGURE 1

LOCATION MAP - LAST CLAIMS

1/250,000

GEOCHEMICAL SOIL SURVEY

Methods

A total of 227 soils were collected over 8.9 miles of line and subsequently analysed for total copper, cobalt, and silver. At each sample site a hole was dug with a mattock and 4-6 ounces of "B" horizon soil - where available - was collected. The sample was placed in a high wet-strength Kraft sample bag and appropriately labelled.

Grid Control

An east-west base line was established on the claims with north-south cross lines run at 500 foot spacings along the base line. Sample site stations were marked by coloured flagging at 200 foot spacings along the cross lines, with a picket station every 600 feet or third sample site on the lines. Sample sites were similarly spaced and marked along the base line. Sample site coordinates were marked on the appropriate flag or picket by felt marker pen. A topofoil chain[2] and compass were used to control distances, directions and to tie-in the grid with existing claim posts and obvious topographic features.

Analytical Treatment of Soil Samples

The samples were freighted to Dawson City, Yukon, and analysed at a mobile laboratory of Acme Analytical Laboratories Ltd. The samples were dried in their respective sample bags at a temperature of 60°C, then sieved to -80 mesh through a nylon or stainless steel screen, digested for 1-1½ hours in aqua regia, bulked with deionized water, and analysed by atomic absorption.

Results

Statistical analysis of the copper results (Figure 2) defines at least four populations of 10-40 ppm, 40-130 ppm, 150-240 ppm and +280 ppm copper. The 130-150 ppm and 240-280 ppm copper ranges are zones of overlap. The 150-240 ppm copper population is considered to be possibly anomalous, with the

---

[2] The topofoil chain is a "lost" thread measuring device in which a counter accurately records in feet from 0 to 15,000 feet the length of thread unreeling from the unit when measuring a length or distance covered. The operator attaches the end of the thread to a fixed point, the counter is set at zero and the operator moves on foot carrying the topofoil chain. As the thread unwinds, the counter records the length. The counter readout is accurate to ±0.2%; on completion of a measurement the counter is reset at zero. The biodegradeable thread is cut and abandoned.

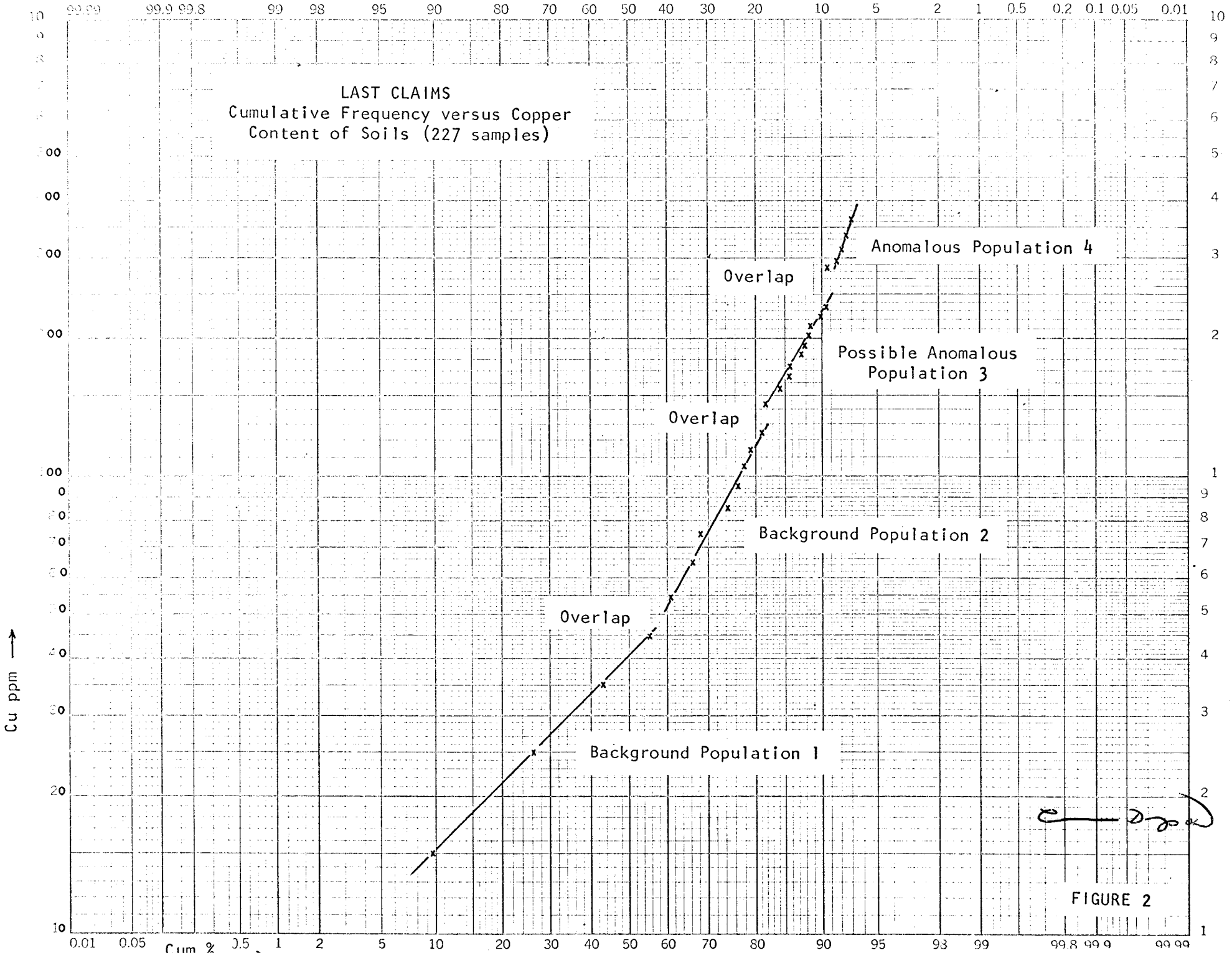


FIGURE 2

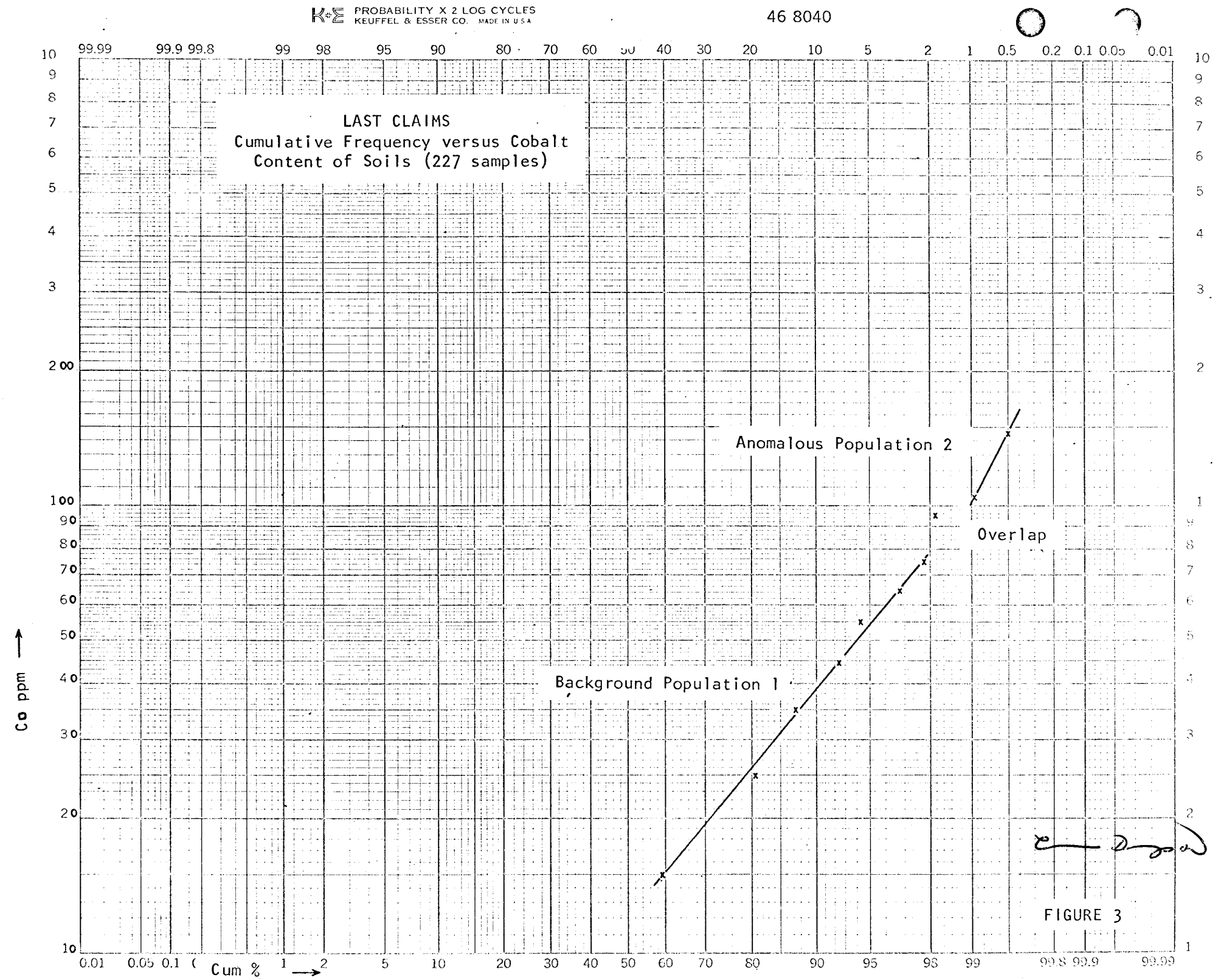

LAST CLAIMS
Cumulative Frequency versus Cobalt Content of Soils (227 samples)
Anomalous Population 2
Overlap
Background Population 1
Co ppm
Cum %
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99

FIGURE 3

+280 ppm copper population defined as definitely anomalous.

Statistical analysis of the cobalt results (Figure 3) defines at least two populations of 10-80 ppm and +100 ppm cobalt, with the 80-100 ppm cobalt range a zone of overlap. . The +100 ppm cobalt population in interpreted as being anomalous. All but three of the 227 soil samples gave values of 0.1 ppm silver, and thus no statistics were considered appropriate.

The copper results define two main geochemical anomalies and the occasional single sample spot high value (Figure 4).

Anomaly 1 extends from Line 25E to Line 60E in a general east-westerly direction and extends over an area of approximately 3500 feet by 500 feet (average), mostly down a very steep westerly facing hillside.

Anomaly 2 extends from Line 0E to Line 20E with a general east-west trend, and covers an area of approximately 200 feet by 400 feet (average), mostly down a steep easterly dipping hillside.

The cobalt results defines one narrow, east-west trending anomaly (Figure 5), centrally located within the claims and coincident with copper anomaly 1 (Figure 4).

The silver results are almost entirely uniformly 0.1 ppm Ag and none are anomalous.

CONCLUSIONS AND RECOMMENDATIONS

(1) A geochemical survey completed on the Last 1-8 mineral claims outlined two main copper anomalies, one of which has an associated small cobalt anomaly.

(2) Further soil sampling is recommended to "close" off both copper anomalies.

(3) Detailed geological mapping and prospecting is recommended in the anomaly areas and surrounds to identify a potential source for the anomalies.

Respectfully submitted,

Colin V. Dyson, P.Eng.

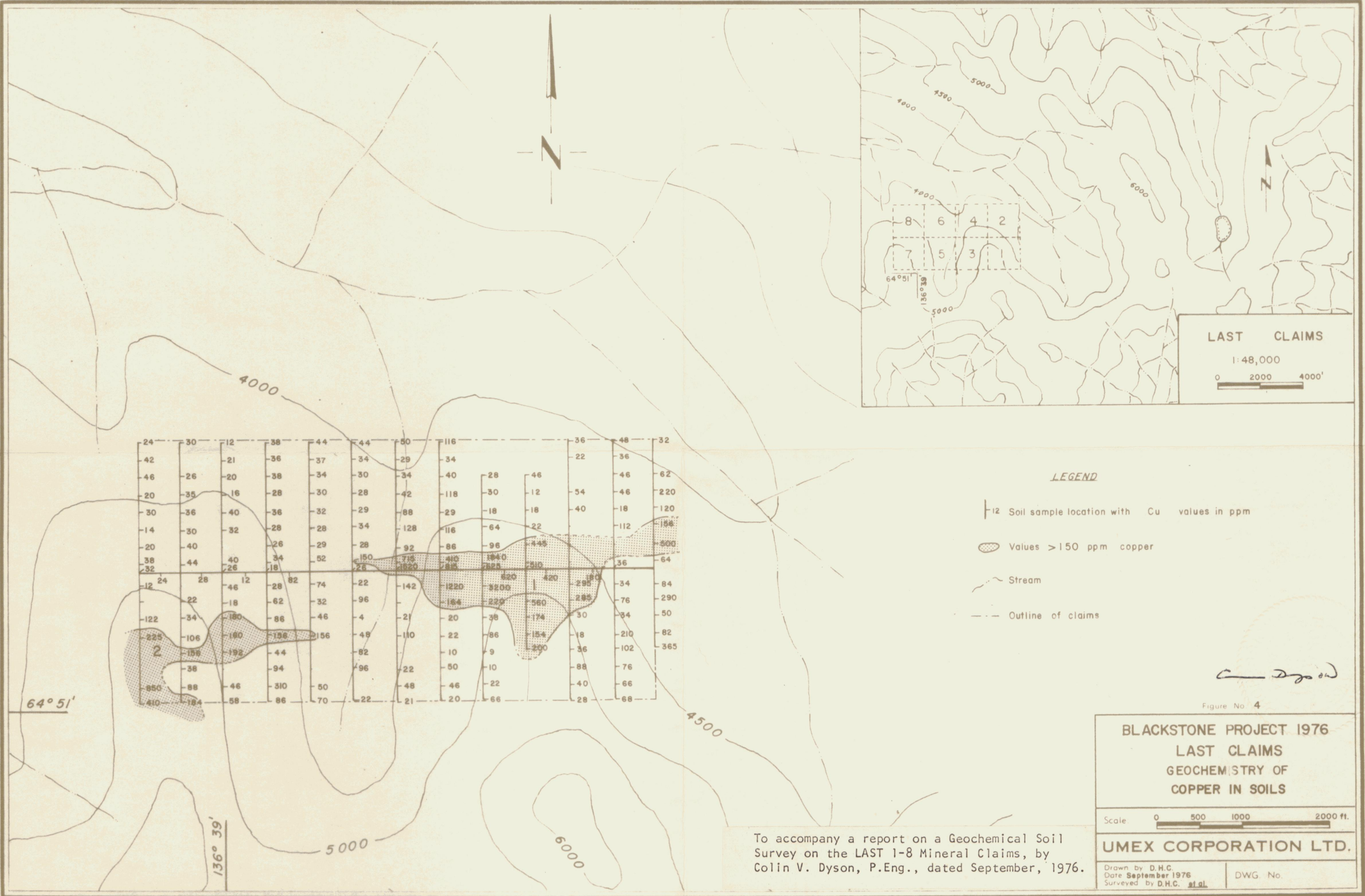


Figure No. 4

BLACKSTONE PROJECT 1976
LAST CLAIMS
GEOCHEMISTRY OF COPPER IN SOILS

Scale 0 500 1000 2000 ft.

UMEX CORPORATION LTD.

Drawn by D.H.C.
Date September 1976
Surveyed by D.H.C. et al.

DWG. No.

To accompany a report on a Geochemical Soil Survey on the LAST 1-8 Mineral Claims, by Colin V. Dyson, P.Eng., dated September, 1976.

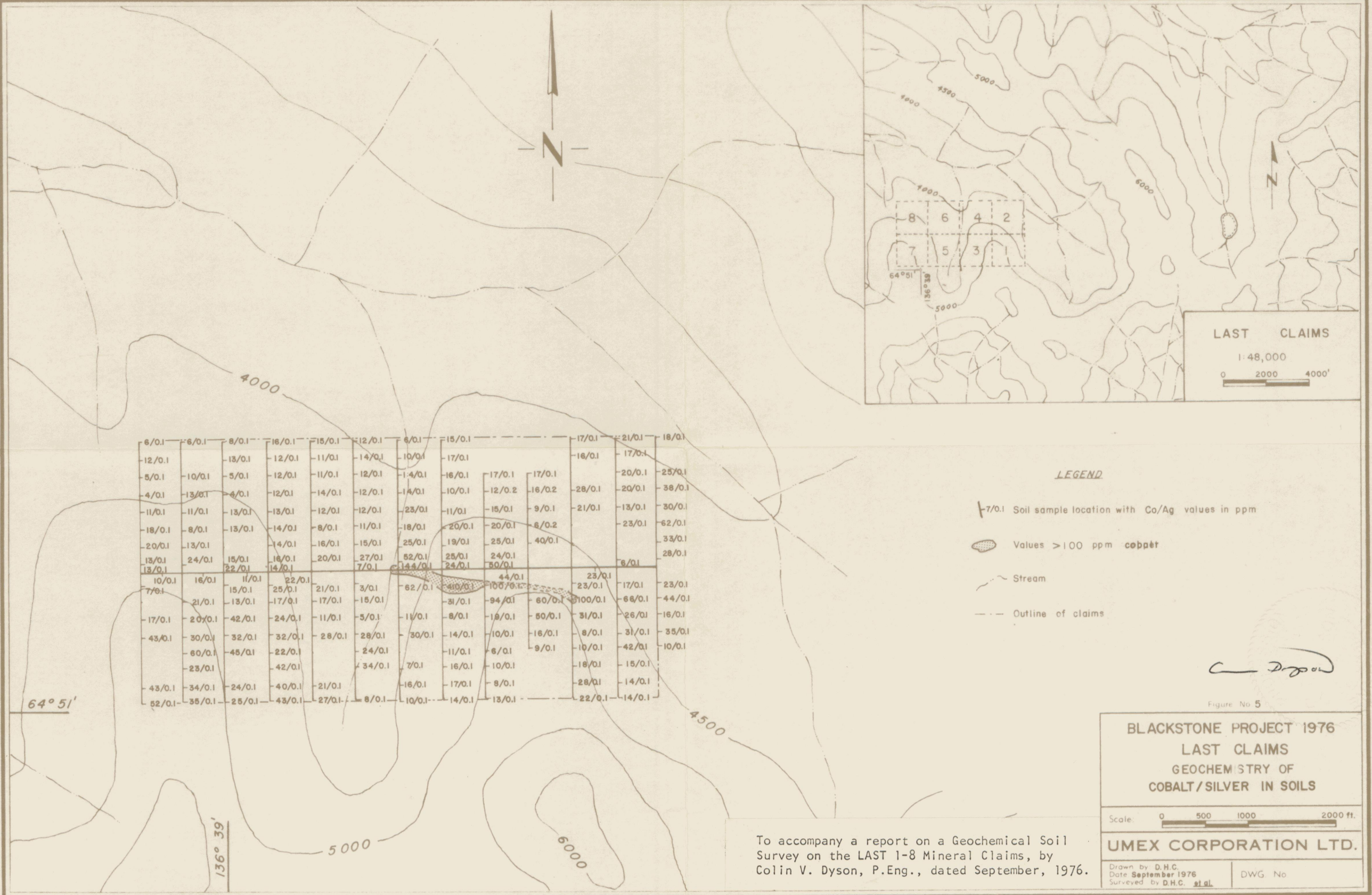


Figure No. 5

BLACKSTONE PROJECT 1976
LAST CLAIMS
GEOCHEMISTRY OF COBALT/SILVER IN SOILS

Scale: 0 500 1000 2000 ft.

UMEX CORPORATION LTD.

Drawn by D.H.C.
Date September 1976
Surveyed by D.H.C. et al.

DWG No

To accompany a report on a Geochemical Soil Survey on the LAST 1-8 Mineral Claims, by Colin V. Dyson, P.Eng., dated September, 1976.