

UMEX

UNION MINIERE EXPLORATIONS
AND MINING CORPORATION LIMITED

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

TELEPHONE 437-9491

GEOCHEMICAL SOIL SURVEY
ON THE
OD 19-34 MINERAL CLAIMS

(Record Nos. YA 2350 - YA 2365)

64°49'N, 139°38'W

N.T.S. 116-B-13

by

Colin V. Dyson, P.Eng.

Work Done: June 21 - July 6, 1976

Date: September 1976

Owner: Union Miniere Explorations and
Mining Corporation Limited

090140



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 \$ 1600.00.

W.D. Sinclair

~~Assistant Geologist or
Resident Mining Engineer~~

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

B.R. Baxter

B.R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

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GEOCHEMICAL SOIL SURVEY ON
THE OD 19-34 MINERAL CLAIMS

INTRODUCTION

In the period June 21 to July 6, 1976 a geochemical soil survey for total lead and zinc was completed over the OD 19-34 mineral claims. The claims are located within the Dawson Mining Division and lie approximately 28 miles north of Mount Ina and 32 miles west of Caldwell Lake, at latitude $64^{\circ}49'N$, longitude $139^{\circ}38'W$. The claims cover a northwesterly facing cirque and a broad north-south trending valley where elevations range from 4000 to 6000 feet.

Access to the property was via helicopter from a base established at Mile 68 on the Dempster Highway, a distance of approximately 38 miles due east of the claims.

PROPERTY

The OD 19-34 claims were staked on August 26, 1975 and recorded on August 28, 1975. The claims were all transferred to the ownership of Union Miniere Explorations and Mining Corporation Limited, for whom the geochemical soil survey was performed. Claim details are as follows:

Claim Name	Record Nos.	Expiry Date
OD 19-34	YA 2350 - YA 2365	August 28, 1976

GENERAL GEOLOGY

The claim area is underlain by a thick sequence of sediments of Proterozoic age. In sequence from the base upwards, these rocks consist of (i) orange-weathering, laminated-to-blocky, stromatolitic dolomite, with occasional black shale interbeds, overlain by (ii) light brown, maroon, and mottled brown-maroon shale with occasional pinkish-white dolomite interbeds, which are overlain by (iii) dark grey massive dolomite, in turn overlain by (iv) laminated-to-blocky, orange-weathering grey stromatolitic dolomite with minor interbedded shale.

GEOCHEMICAL SOIL SURVEY

Methods

In the course of the survey a total of 300 soil samples were collected



64°45'

139°15'

FIGURE 1

LOCATION MAP - OD CLAIMS

1/250,000

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over 12.5 miles of line and subsequently analysed for total lead and zinc. 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. The writer was on the claims on June 21 and 22, 1976 to organize the survey and to study the general geology of the claims. The soil sampling was performed by Mr. R. Boyce and Mr. R. Joly in the period June 21 to July 6, 1976.

Grid Control

An east-west base line was established on the claims with north-south cross lines run at 1000 foot spacings from 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 chain¹ 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 plots of cumulative frequency versus concentration were completed for the lead and zinc results (Figures 2 and 3, respectively). Statistical analysis of the lead results (Figure 2) defines at least four populations of 10-80 ppm, 90-180 ppm, 200-290 ppm, and +330 ppm lead; the

¹The 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 bio-degradable thread is cut and abandoned.

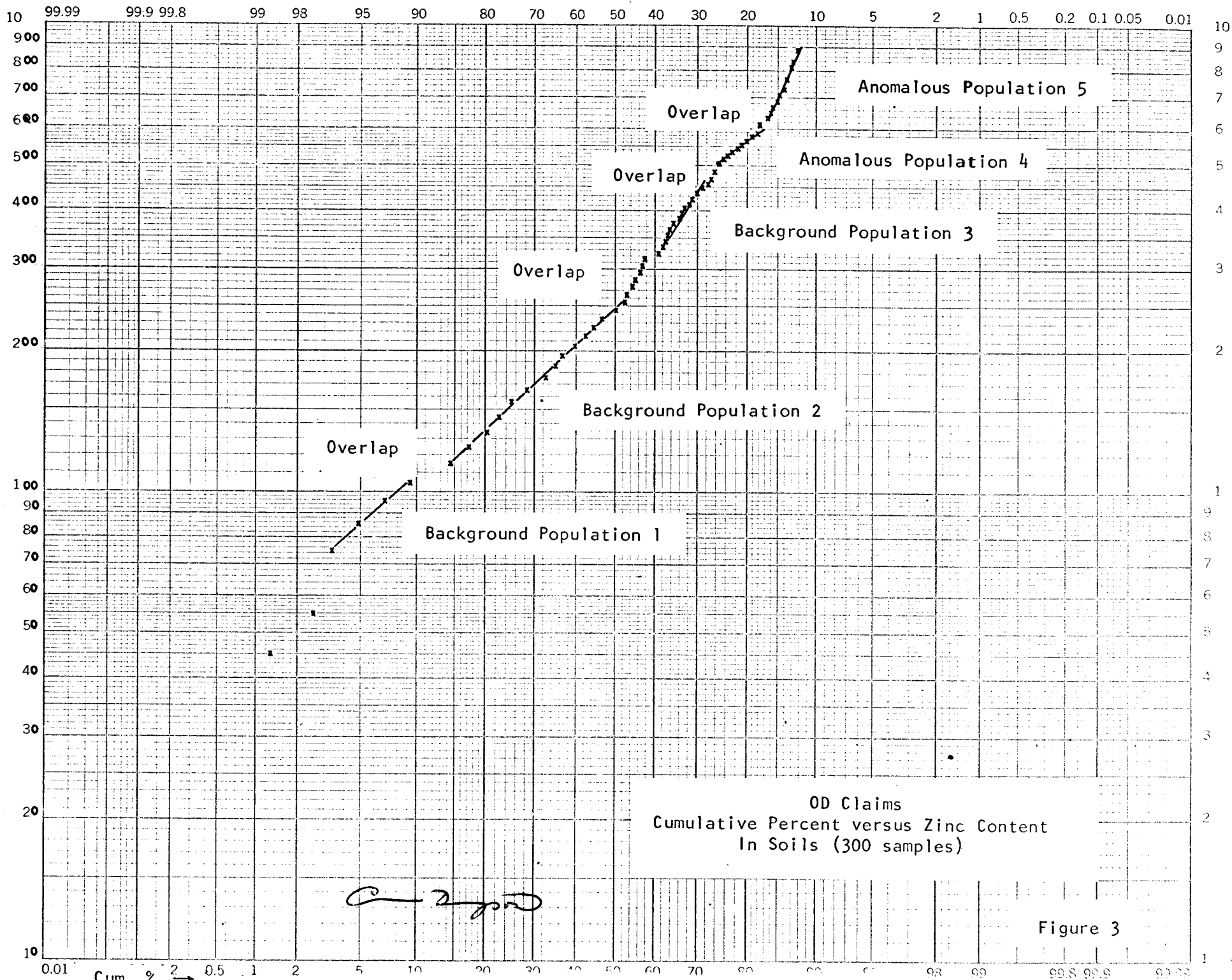


Figure 3

80-90 ppm, 180-200 ppm, and 290-330 ppm lead ranges are zones of overlap. Anomalous lead values are considered to be those of the 200-290 ppm and +330 ppm lead populations and their zones of overlap.

Statistical analysis of the zinc results (Figure 3) defines at least five populations of 70-110 ppm, 110-280 ppm, 320-450 ppm, 500-600 ppm, and +610 ppm zinc; the 280-320 ppm, 450-500 ppm, and 600-610 ppm zinc ranges are zones of overlap. Anomalous zinc values are considered to be those of the 500-600 ppm and +610 ppm populations and their zones of overlap. The lead results define two main anomalous areas and several small spot high values (Figure 4). Anomaly 1 (Lines 0 and 10W) covers an area of some 1000 feet by 1000 feet and is open to the east. Anomaly 2 extends in a roughly northwesterly direction from Line 30W to 60W in an irregular pattern, possibly reflecting the topography and drainage systems in the area. The creeks may reflect structural breaks and thus the anomaly irregularity may also be further explained. Both anomalies essentially cover areas of minimal to nil outcrop.

The zinc results define three main areas of anomalous values (Figure 5).

The largest anomaly (1) extends over an area of 2000 feet+ by 3000 feet on Lines 0 to 20W and terminates at the main creek.

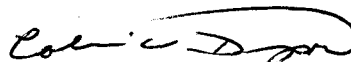
Anomaly 2 is a long narrow northwesterly trending anomaly on Lines 30 to 60W and may reflect an offset portion of Anomaly 1, assuming that the main north-south creek represents a fault structure. Area 3 is a series of small spot high anomalies.

The lead and zinc anomalies are coincident in part or total.

CONCLUSIONS AND RECOMMENDATIONS

- (1) A geochemical soil survey performed on the OD 19-34 mineral claims outlines several coincident or partially coincident lead/zinc geochemical anomalies.
- (2) Additional soil sampling is warranted to "close" off the anomalies and to detail possible source areas within the broad anomalies.
- (3) Test pitting is recommended in detailed "target" areas defined by closer spaced soil sampling.

Respectfully submitted,



Colin V. Dyson, P.Eng.



LEGEND

- Location of soil sample with lead values in ppm
- Values > 200 ppm lead
- Outline of claim group

Figure No. 4

BLACKSTONE PROJECT 1976
OD CLAIMS
GEOCHEMISTRY OF
LEAD IN SOILS

Scale: 0 500 1000 1500 2000 feet

UMEX CORPORATION LTD.

To accompany a report on a Geochemical Soil Survey on the OD 19-34 Mineral Claims, by Colin V. Dyson, P.Eng., dated September 1976.

DRAWN BY: C.V.C.
 DATE: September, 1976
 SUPERVISED BY: R.S. [Signature]
 DWG. No.



LEGEND

- Location of soil sample with zinc values in ppm
- Values > 500 ppm zinc
- Outline of claim group

Figure No. 5
BLACKSTONE PROJECT 1976
OD CLAIMS
GEOCHEMISTRY OF
ZINC IN SOILS

Scale: 0 500 1000 1500 2000 feet

UMEX CORPORATION LTD.
 DRAWN BY: D.H.C.
 DATE: September, 1976
 SURVEYED BY: R. Joly
 DWG. No.

To accompany a report on a Geochemical Soil Survey on the OD 19-34 Mineral Claims, by Colin V. Dyson, P.Eng., dated September 1976.