

GEOCHEMICAL REPORT ON THE
LEM 1 and 2 CLAIMS
BRITISH COLUMBIA
CARIBOO MINING DIVISION

81-1219-10 005

by

S.L. Topham

and

P.E. Fox PhD., P. Eng.

Orbex Minerals Limited
410-675 West Hastings Street
Vancouver, B.C. V6B 1N2.

CLAIMS

LEM 1 and 2
NTS 93 A/6
121°16'W 52°20'N

February 2, 1982.

TABLE OF CONTENTS

	Page No.
INTRODUCTION	1
LOCATION AND ACCESS	1
CLAIMS	4
SAMPLING PROGRAM	4
GENERAL GEOLOGY	5
RESULTS	6
DISBURSEMENTS	7

ILLUSTRATIONS

Figure 1 - Location Map	2
Figure 2 - Claim Map	3
Figure 3 - Geochemical Map	in pocket

INTRODUCTION

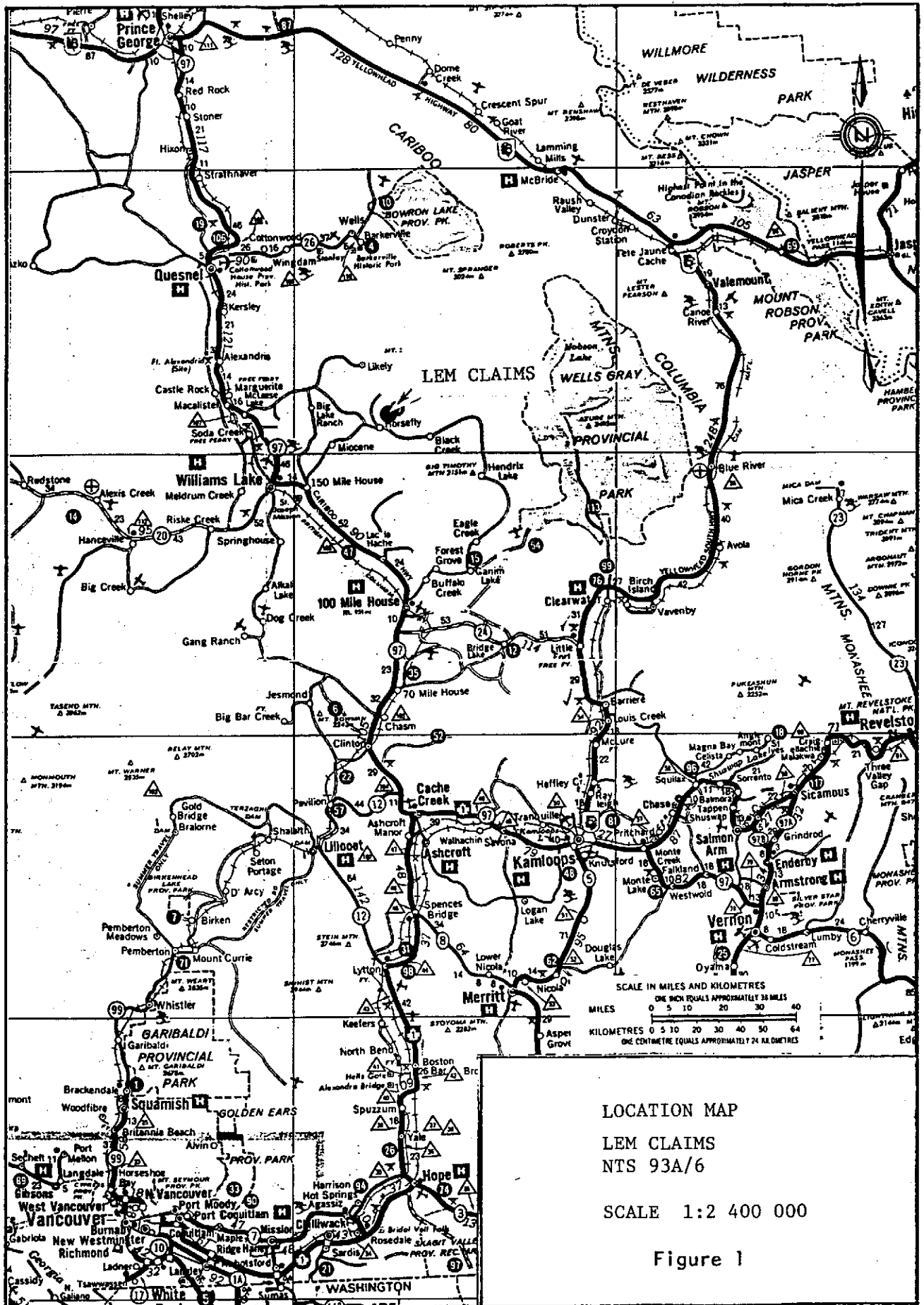
The purpose of this report is to present results of geochemical soil sampling done on the Lem claims. A grid was established, and soil sampling carried out between October 24, 1981 and November 11, 1981. The program was designed to aid an evaluation of the property, originally staked in November, 1980.

LOCATION AND ACCESS

The claim group is located approximately 9 kilometres (5.6 miles) east-northeast of the village of Horsefly, B.C., and approximately 2.4 kilometres (1.5 miles) south of the west end of Horsefly Lake. Access is by 13 kilometres (8 miles) of secondary gravel road from Horsefly, sections of which near the west boundary of LEM #1 require four-wheel-drive vehicles.

The claims are situated in moderately rolling terrain on the west flank of Black Mountain. Altitudes range from peaks of 1035 metres (3400 feet) to a low of 800 metres (2600 feet) beside Horsefly Lake. The area exhibits erosional and depositional features of continental glaciation which moved in a general northwesterly direction. Outcrops are scarce and limited to ridge crests and deeply incised stream valleys. Overburden depths range from one to six metres.

Vegetation is light to moderate and consists of open stands of spruce, fir, pine, birch and poplar. Undergrowth is thick in areas of poor drainage. Also present are overgrown traces of considerable linecutting, bulldozer trenches and drill sites prepared in the late 1960's and early 1970's (Noranda Mines, Hudson's Bay Oil and Gas).





CLAIMS

There are two claims within the group. Expiry dates noted assume work described herein is accepted for assessment purposes.

<u>Name</u>	<u>No. of units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Lem 1	18	3057	Nov. 28, 1986.
Lem 2	18	3058	Nov. 28, 1986.

SAMPLING PROGRAM

The program consisted of grid preparation and soil sampling. Ninety kilometres of grid line, spaced 100 metres apart, was flagged and marked at 80 metre intervals.

Geochemical work consisted of soil samples collected every 80 metres along established grid lines. Samples were taken from the B horizon where possible or from talus material.

Approximately 1-kg samples were collected by mattock and stored in kraft paper bags. Samples were screened and the -80 mesh fraction pulverized and analysed by Acme Analytical Laboratories, 852 East Hastings Street, Vancouver, B.C. The 26-element inductively coupled argon plasma technique (ICP) was used, along with atomic absorption for gold.

GEOLOGY

The prospect is situated in the eastern part of the Quesnel trough structural-petrologic province not far from its eastern boundary with metamorphosed rocks of the Cariboo Mountains. Rocks in the prospect region, the Takla Group, consist of a thick succession of submarine volcanics, pillow basalts, agglomerate, poly lithic volcanic breccias, discontinuous carbonate horizons, and several thousand metres of subaerial volcanics consisting of leucite-bearing basalt and related flow top breccias, conglomerate, sandstone, tuff, laharic breccias and limestone pebble conglomerates.

Main structural features of the claim area are steeply-dipping northeast, northwest and east-west faults. Regional faults (20 to 60 km) bound the volcanic complexes and are considered to be block faults.

Several synvolcanic stocks of diorite, syenodiorite and syenite occur within the volcanic sequence and represent eroded conduit zones from which much of the flows and breccia materials may have erupted.

The Lemon Lake stock of syenodiorite, monzonite and syenite is situated 700 metres northest of Lemon Lake. Within this intrusion, and adjacent volcanic and pyroclastic rocks, sulphides and alteration minerals form numerous porphyry-type showings. A few pyrometasomatic-type prospects, occurring as veins, disseminations and shear zones, are developed peripheral to porphyry occurrences within the Lemon Lake stock.

RESULTS

Results of geochemical testing are given in Figure 3. Each sample site is plotted and shows gold content (in ppb), silver content (in ppb), arsenic content (kn ppm) and copper content (kn ppm).

Eleven hundred samples were tested. Ninety four samples (8.5%) were at or above 11 ppb gold. Seventy samples (6.4%) were at or above 20.4 ppb gold. Forty six samples (4.2%) were at or above 30 ppb gold. Anomalous amounts of silver and arsenic were also present.

No easily discernible pattern of anomalous gold is present. The effects of glaciation, deglaciation and erosion have obscured the record. More mapping, along with a compilation program of past work in the area, would possibly clarify the geochemical results.

DISBURSEMENTS

90 km of grid preparation and soil
sampling Oct. 24 to Nov. 11, 1981.
Renegade Mineral Limited (Invoice)

\$ 16,554.38

Geochemical analysis,
Acme Analytical Labs,
Vancouver, B.C.
1100 samples @ \$9.15 (Invoice)

10,065.00

\$ 26,619.38

Helicopter E.M. and Mag. Survey
Apex Airborne Surveys Ltd.
(Report sent in with Statement
of Exploration and Development)
111.5 km @ \$60.00 (Invoice)

6,699.00

\$ 33,318.38

Prepared by

ORBEX MINERALS LIMITED

S. Topham

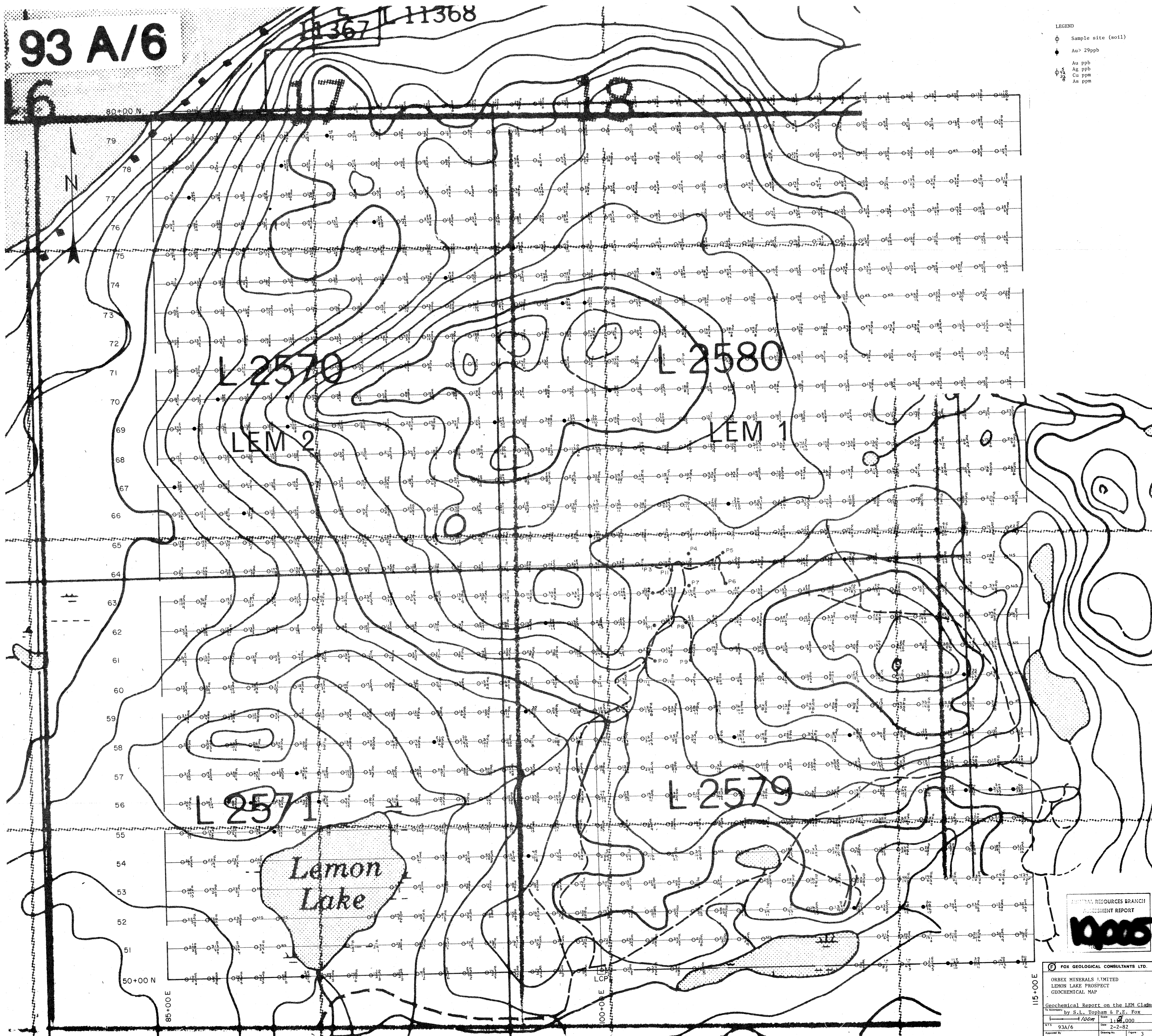
S.L. Topham

P. E. Fox
P.E. Fox Ph.D. P. Eng.

February 2, 1982.

Vancouver, B.C.

93 A/6



LEGEND
○ Sample site (soil)
● Au > 29ppb
Au ppb
Ag ppb
Cu ppm
As ppm

FEDERAL RESOURCES BRANCH
ASSESSMENT REPORT

1000

FOX GEOLOGICAL CONSULTANTS LTD.

ORBEX MINERALS LIMITED
LEMON LAKE PROSPECT
GEOCHEMICAL MAP

Geological Report on the LEM Claims
by S.L. Topham & P.E. Fox

Scale 1:100,000
Date 2-2-82
Drawing No. 3