GEOCHEMICAL SURVEY
ON PARTS OF
RICO CLAIM GROUP

Sheet 115 1/3, 2 miles N. of Mt. Nansen, Y.T.
Lat. 62°08'N., Long. 137°20'W.

8363.13

By:

DR. A.E. AHO,
Supervisor for

AEX MINERALS CORPORATION

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
$ 8363.13

Resident Geologist or
~~Resident Mining Engineer~~

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

Commissioner of Yukon Territory

Work done June 28 - September 15 1973

TABLE OF CONTENTS

LOCATION AND ACCESS

The claim group straddles a north-facing permafrost slope and valley bottom mainly along the south side of the head of Klaza River, 2 miles north of Mt. Nansen.

Access is by helicopter, 35 miles from Carmacks and by foot 6 miles from the Mt. Nansen road.

BACKGROUND

Under the writer's direction, the Rico claims were staked in June 1973, recorded June 28, and are now held by AEX Minerals Corporation.

Staking was based on possibilities of porphyry copper mineralization for the following reasons:

1. Geology of the area (Carmacks Sheet, Geol. Surv. Can. Map 340 A) indicates a northwest-trending belt of porphyries cutting Mesozoic Mt. Nansen volcanics and Klotassin botholith.

2. Porphyry copper mineralization is being explored by Cyprus Exploration on the adjoining property to the southeast and many gold and silver prospects occur in the general vicinity.

3. Aeromagnetic map 3312 G shows a northwest-trending belt of magnetic lows corresponding to the porphyry belt with two magnetic lows in the claim area.

4. Previous reconnaissance soil sampling in the claims area showed some lead, zinc and copper anomalies, but was not effective in the valley due to permafrost and stream and sidehill overburden.

As is typical in this unglaciated terrain, this portion of Klaza River has migrated into the unfrozen south-facing slope, leaving scoured permafrost stream detritus on the south side of the valley. It is also thought that this ancient WNW trending stream valley was localized along a zone of weakness, part of a pattern of physiographic of linears in the general area.

WORK DONE

During and after staking, preliminary geologic inspection by the writer showed varied intrusive rocks including altered and quartz-veined porphyries as well as a manganese and iron oxide stained swamp on the claims.

From the end of June 1973, and mainly between August 1st and September 15, 1973, several soil and silt sample traverses and two soil sample grids were sampled and analysed, mainly by S.H. Zillman, prospector. A local magnetic survey was also done on the central part of the claims.

From May 3 to 28, 1974, line cutting and an accurate magnetic survey was done over all the claims except a few on the south east end. Results of these surveys are included in the two reports entitled "Geochemical Survey..." and "Magnetometer Survey...".

GEOCHEMICAL SURVEY (See enclosed maps)

Several soil and silt traverses were run and two local grids were soil sampled, mainly by Stanley H. Zillman, Prospector.

Soil samples were dug mainly with a small shovel, sometimes with a grub hoe, down to inorganic soil where possible. This was a slow and difficult process in most cases due to organic muck, volcanic ash, and permafrost. Some samples in the valley bottom were of poor quality and many localities could not be sampled.

Silts were collected from some of the small streams.

Samples were analysed for copper, lead, zinc, silver and molybdenum with atomic absorption techniques by Barringer Research.

Results were plotted as shown on the accompanying maps and local backgrounds chosen for the metals by visual scanning are:

Copper	25 ppm
Lead	20 ppm
Zinc	85 ppm
Silver	1.2 ppm
Molybdenum	3 ppm.

RESULTS AND INTERPRETATION

Western Claims

On the Western claim area Rico 65 and 66 claims show slightly anomalous copper and zinc in two traverse samples and an earlier reconnaissance sample near the bend of Klaza River showed high lead and zinc. The possible significance of these results cannot be evaluated without some further soil sampling in conjunction with geologic mapping.

Central Claims

In the Central claim area, grid sampling yielded a moderate

molybdenum and silver anomaly with slightly anomalous copper on Rico 36 claim. This appears to be related to altered porphyry which is cut by a stockwork of quartz veinlets. Moderately anomalous copper lead and zinc values also occur near the No. 1 posts of Rico 87 and 88. However, most of the grid was not anomalous and traverses in the valley bottom showed no anomalous values due to valley fill. Geologic mapping and some further soil sampling will be necessary to define the extent and possible significance of the anomalous areas.

The strongest copper-lead zinc anomaly is in a manganese and iron oxide-stained swamp on A3 claim, NE of Rico 37 claim, about line 128E 16N on the magnetometer survey grid - See magnetometer survey. This may indicate significant mineralization associated with a subtle magnetic anomaly. Although this area is entirely overburden-covered, nearby geologic mapping accompanied by some further magnetic survey and soil sample may aid in further evaluation.

Eastern Claims

In the Eastern claim area, approximately on Rico 53 and 55 claims, a soil sample traverse showed high lead and zinc values below old bulldozer trenching in altered porphyry.

A local grid on Rico 13 and 14 claims near this locality also showed anomalous copper, lead and zinc. Geologic mapping and further soil sampling will be necessary to define the extent of this anomalous area and its significance.

CONCLUSIONS

The main areas of interest on the claim group, i.e. the valley bottom, cannot be evaluated by geochemistry since it is obviously masked by stream and sidehill detritus in addition to being plagued by permafrost.

However, sampling of the slopes has indicated several anomalous areas which justify more complete soil sampling and evaluation, in conjunction with geologic mapping.

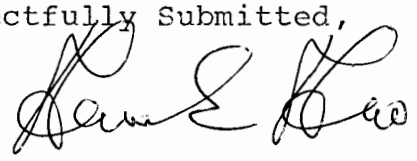
The most significant anomaly may be in the manganese and iron oxide-stained swamp on A3 claim.

RECOMMENDATIONS

1. Further soil sampling of areas of interest should be done in conjunction with geologic mapping in late August or September, 1974, when permafrost is thawed to a maximum.

2. Subject to this further sampling and geologic mapping being evaluated in light of the magnetometer survey, it is recommended that a minimum of about 3,000 feet of overburden drilling accompanied by geochemistry and panning of all cuttings be done in March 1975 to test for suspected porphyry copper or other type of mineralization.

Respectfully Submitted,



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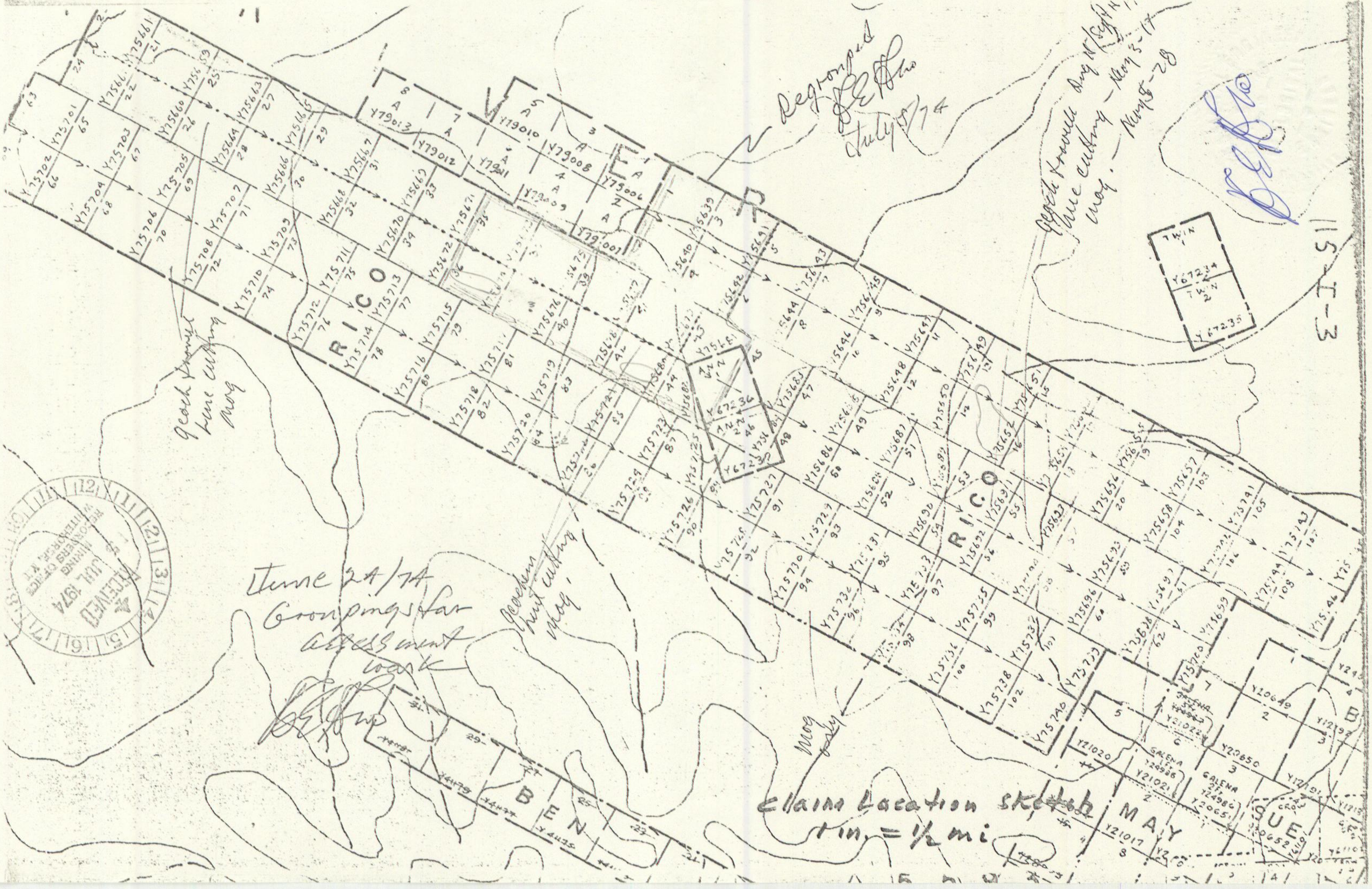
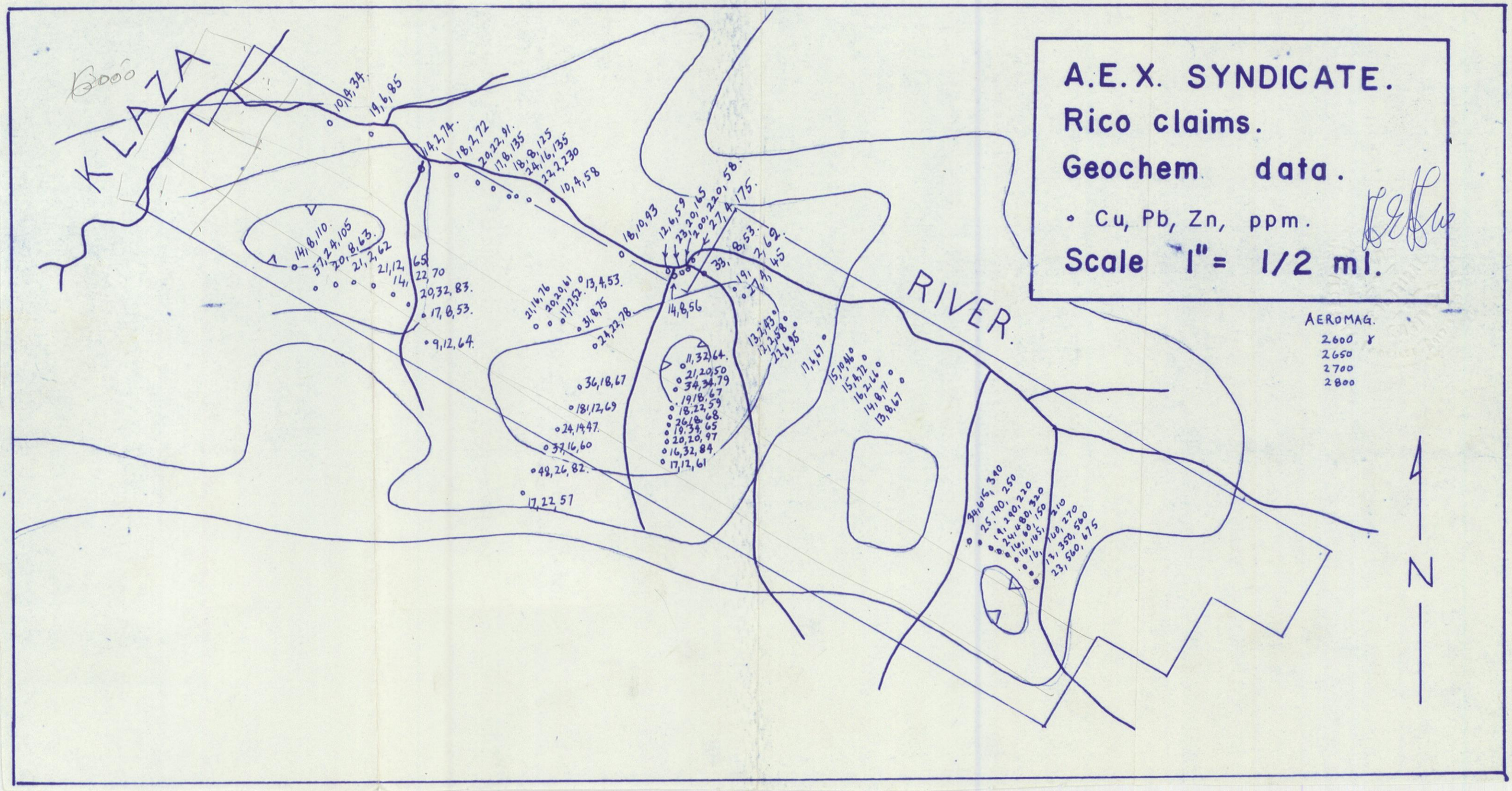
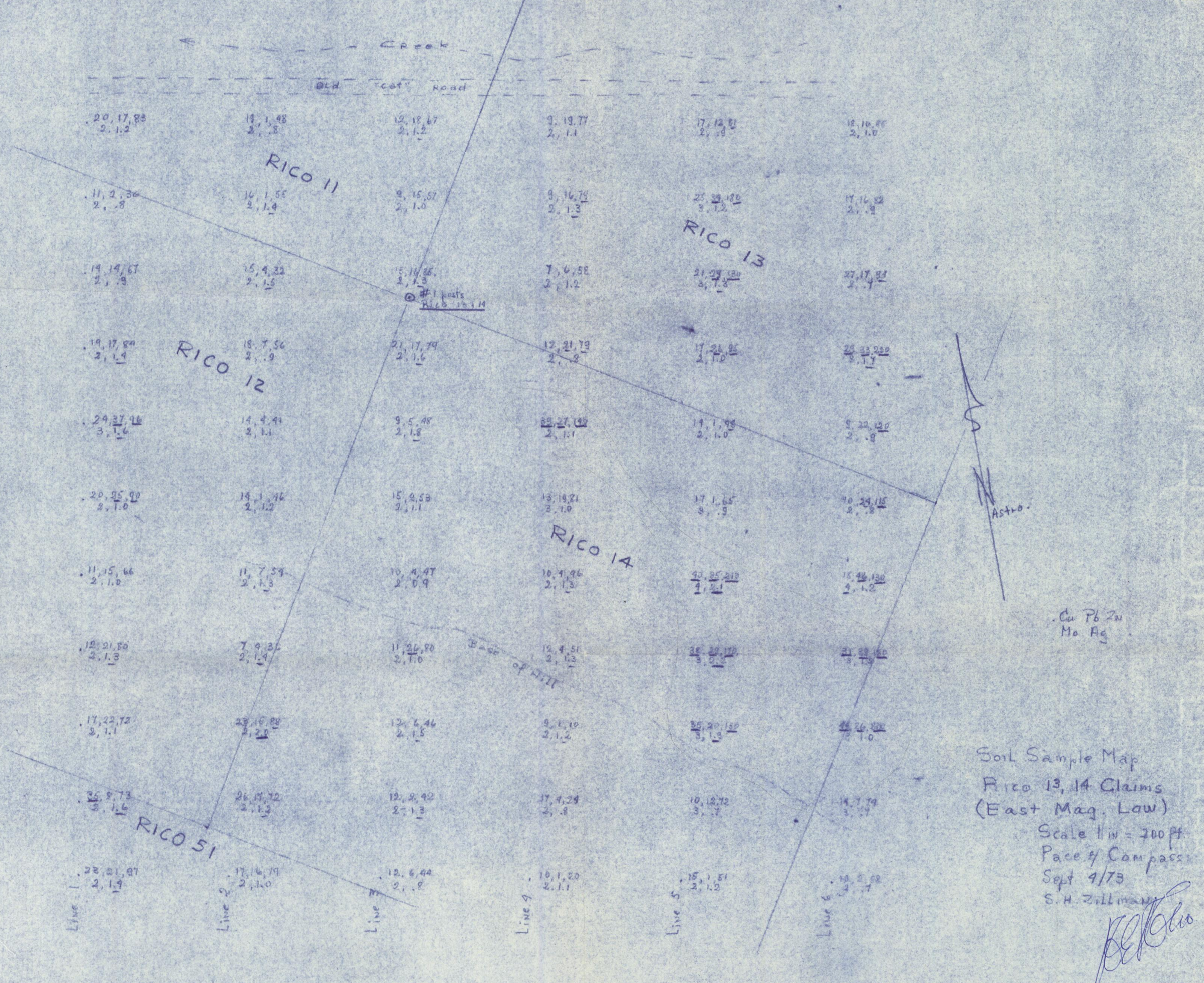
Ph.D., P.Eng. (B.C. and Y.T.)



Claim Location Sketch
1 in. = 1/2 mi
June 24/74
Groupings for assessment work
Regrouped
July 5/74
RICO
RICO
BEN
MAY
SUE
TWIN 1
Y67234
TWIN 2
Y67235
ANN 1
Y67236
ANN 2
GALENA
geoch traverse line cutting mag
Geochem line cutting mag.
line cutting - Nov 5-17
mag. - Nov 18-28
mag. only
RECEIVED
JUL 1974
MINING RECORDERS OFFICE


A.E.X. SYNDICATE.
Rico claims.
Geochem data.
• Cu, Pb, Zn, ppm.
Scale 1" = 1/2 mi.
AEROMAG.
2600 &
2650
2700
2800
KLAZA
RIVER.
N

PREVIOUS RECCE
GEOCHEM
Mount
Nansen
5593
5000
4500
insuf. sample
15·45·77·0
18·3·91·0
97·100
12·8·36·0
16·18·56·0
12·22·40·0
8·6·28·0
16·24·124·0
12·12·33·0
10·30·76·0
12·13·64·0
10·10·52·0
16·24·84·0
6·22·60·0
3·9·40·0
10·6·44·0
12·12·128·0
10·12·72·0
6·4·40·0
14·10·36·0
12·30·52·0
12·8·40·0
20·10·56·0
10·17·89·0
13·11·82·0
10·6·36·0
5·11·21·0
8·12·31·0
8·11·33·0
15·14·24·0
32,80,62
122,30,54
74·17·47
12·11·41
12·36·92
17·14·52·0
10·8·24·0
10·8·28·0
16·10·48·0
10·6·12·0
12·3·28·0
20·14·56



Creek
Old "cat" Road
RICO 11
RICO 12
RICO 13
RICO 14
RICO 51
#1 posts Rico 13 + 14
Base of Hill
Astro.
Line 1
Line 2
Line 3
Line 4
Line 5
Line 6
. Cu Pb Zn
Mo Ag
Soil Sample Map
Rico 13, 14 Claims
(East Mag. Low)
Scale 1 in = 200 ft
Pace & Compass
Sept 4/73
S. H. Zillman

Klaza River Flats

RICO 1

Cat Road

RICO 2

Camp site

Cat Road — Line 1

Swamp

Swamp

Line 2

RICO 35

RICO 37

RICO 39

RICO 41

Astro.

Claim line

RICO 42

Old Campsite

Creek

Line 3

RICO 38

RICO 40

wet ground

RICO 36

Low wet ground. No samples

Creek

#1 Posts Rico 39,40

#1 Posts Rico 83,84

#1 Posts Rico 87,88

Line 14 9 — Line 13 12 — Line 12 12 — Line 11 12 — Line 10 11 — Line 9 8 — Line 8 2 — Line 7 11 — Line 6 10 — Line 5 17 — Line 4 17 — Line 3 12 — Line 2 17 — Line 1 21 — Line 15 11 — Line 16 5

Pace & Compass
Soil Sample Map
Rico 39, 40 Claims, etc.
Scale 1 in. = 400 ft.
Sept. 15/73
S.H. Zillman
(Central Mag Low)

. Cu Pb Zn ppm
Mo Ag