5688

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS 82F/15W

GEOCHEMICAL SURVEY

ON THE OPZN MINERAL CLAIMS

OF THE COPA GROUP

SLOCAN MINING DISTRICT

BRITISH COLUMBIA

Work performed for the period August 15 to October 31, 1975

NOVEMBER 3, 1975

NICHOLAS L. SZABO

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GEOCHEMICAL SURVEY

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SUMMARY

A total of 176 soil samples were collected on the accessible parts of the six OPZN claims of the Copa Group. The samples were analyzed for hot extractable Cu, Pb, Zn, Fe, and Mn, and a large essentially coincident copper-zinc anomaly was located on the property.

INTRODUCTION

The OPZN claims, part of the Copa Group, are located on Bernard Creek, approximately 10 miles north of the town of Riondel in southeastern British Columbia. The claims were staked around an area where boulders containing chalcopyrite are known to occur.

Access to the property is by gravel road from Riondel 8 miles along Kootenay Lake, and thence 3 miles east along the valley of Bernard Creek.

GEOLOGY

The property is underlain by Windermere sediments of late Proterozoic age which dip moderately to steeply to the west. These sediments consist of the quartzites of the Hamill Series overlain by magnesian limestones of the Badshot Formation, which in turn are overlain by the Lardeau Series of schists, quartzites, and paragneiss. A small granitic intrusion, probably of Mesozoic age, is located ½ miles east of the property,and a large similar intrusion lies 2 miles to the west.

GEOCHEMICAL SURVEY

Method

The soil survey was performed by D. Good and R. Chapman under the direction of the writer. Lines were spaced at 400 feet and samples were collected along the lines at 100 feet centres. The topography in the area is extremely rugged, and only partial coverage of the six claims was possible. Lines were run by pace and compass, and with few exceptions, samples were collected from the B_1 horizon.

Sample Preparation and Analysis

All samples were oven dried and sieved. The -80 mesh size fraction was then analyzed for hxCu, hxPb, hxZn, hxFe, and hxMn in Cominco's Vancouver Research Laboratory. Analysis was by atomic absorption using 20% hot nitric acid to bring ions into solution. Threshold values were determined by the use of logarithmic probability plots, and these values were found to be Cu_t 70ppm, Pb_t 36ppm, and Zn_t 110ppm. The manganese and iron content of soils were plotted against the Cu, Pb, and Zn content to see if correlation existed between them.

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Data Presentation

Plate 1	Location Map, OPZN Claims Copa Group	1" = 50,000'
Plate 2	Cu Geochemistry	1" = 400'
Plate 3	Pb Geochemistry	1" = 400'
Plate 4	Zn Geochemistry	1" = 400'
Plate 5	Fe Geochemistry	1" = 400'
Plate 6	Mn Geochemistry	1" = 400'

Results

Two large copper anomalies occur on the property: one covering the northern portions of OPZN Claims 4 and 6 and most of the surveyed portion of OPZN 5, the second covers the southern portion of OPZN 4 and 6 (Plate 2). A number of single sample highs of probably little significance were also located.

No lead anomaly of any significance was located by the survey.

Two large zinc anomalies were located on the claims. One of these covers the northwest corner of OPZN 5; the other covers the central portions of Claims OPZN 4, 5, and 6.

The Cu, Pb, and Zn content shows no correlation with the iron content. Some correlation with Mn is shown by Cu and to a lesser extent by Zn. This correlation is very low and only holds true for low concentrations of Cu and Zn.

CONCLUSIONS

Two large copper and zinc anomalies were located on the OPZN claims. Both in copper and zinc, there are two distinct anomalies; this, however, is probably a function of rugged topography and variable soil development rather than of two different metal sources. The copper zinc anomalies are largely coincident. The lack of correlation between Cu, Zn, Mn, and Fe indicate that the anomalies are unlikely to be due to scavenging by the latter two metals.

The anomalies do not seem to be related to the mineralized boulders in the bottom of the valley, but are more likely related to a copper showing known upslope from the anomalies.

Submitted by N L Szabo

N.L.SZABO
Project Geologist
Exploration

Endorsed for
Release by W.T. Irvine

W.T.IRVINE, P. ENG.
Manager, Western District
Exploration

/cpt
November 4, 1975

Distribution

Mining Recorder (2)
Western District (1)
Administration (1)

DOMINION OF CANADA:)
)
PROVINCE OF BRITISH COLUMBIA.) IN THE MATTER OF
)
TO WIT:)

I, NICHOLAS LOUIS SZABO

of the MUNICIPALITY OF RICHMOND

in the Province of British Columbia, do solemnly declare that

1. Copies of a report regarding a geochemical survey on certain claims situated in the Slocan Mining Division are being filed with the Mining Recorder in Vancouver.

2. Attached hereto, and marked with the letter "A" upon which I have signed my name at the time of declaring hereof, is a Statement of Expenditures incurred in connection with the geochemical study of the said claims showing in addition the period during which those making the said survey performed their work.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

Declared before me at the City)
)
of Vancouver, in the Province of)
) Nicholas L Szabo
British Columbia, this day)
)
of November 1975, A.D.)

A Commissioner for taking Affidavits within
British Columbia or
A Notary Public in and for the Province
of British Columbia.

COMINCO LTD.

EXPLORATION WESTERN DISTRICT

EXHIBIT "A"

COST OF GEOCHEMICAL PROGRAM

COPA GROUP, OPZN CLAIMS

SLOCAN MINING DISTRICT

BRITISH COLUMBIA

N.T.S. 82F/15W

116° 47'W, 49° 52'N

1.	Report writing and field supervision by N.L.Szabo, Project Geologist, 2½ days at $100.00/day	$ 250.00
2.	Drafting, 1 man-day at $60.00	60.00
3.	R.Chapman, 4 man-days at $70.00/day	280.00
4.	D. Good, 4 man-days at $70.00/day	280.00
5.	Domicile	239.94
6.	Truck Rental	315.33
7.	Analysis, 176 samples at $3.35/sample	589.60
		$2,014.87

Signed Nicholas L Szabo

N.L.SZABO
Project Geologist

THIS IS EXHIBIT "A" TO THE STATUTORY DECLARATION OF NICHOLAS L. SZABO

DECLARED BEFORE ME THIS DAY OF 1975.

A COMMISSIONER FOR TAKING
AFFIDAVITS FOR BRITISH COLUMBIA

COMINCO LTD.

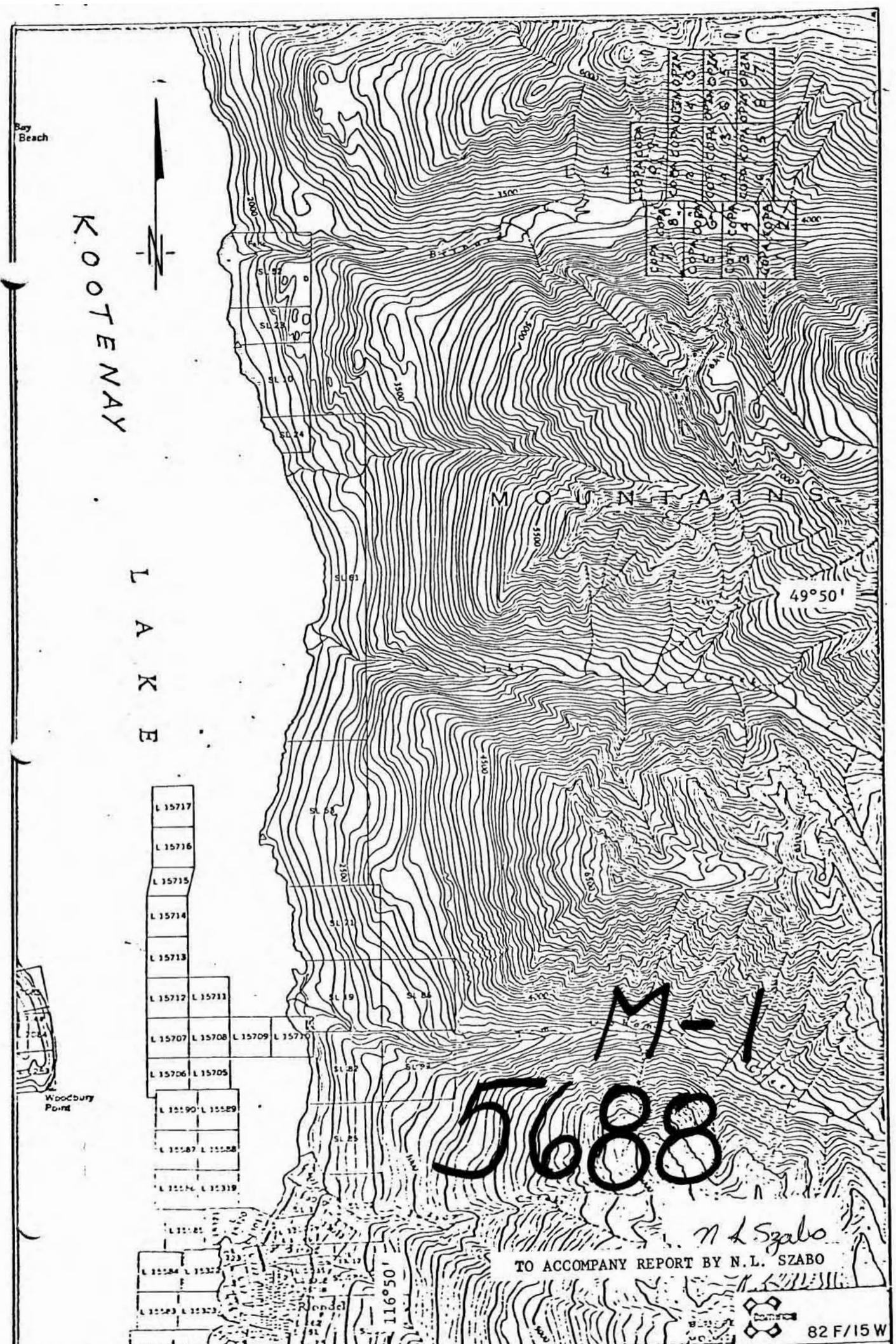
EXPLORATION WESTERN DISTRICT

STATEMENT OF QUALIFICATIONS

N. L. Szabo was responsible for conducting the geochemical survey described herein. Mr. Szabo has received his M.Sc. from the University of Connecticut and expects to receive his Ph.D. in the coming academic year from the University of New Brunswick. He has worked with the New Brunswick Mines Branch and the Geological Survey of Canada, and I consider him a competent and experienced geochemist.

Signed: J. Richardson.

J. Richardson, P. Eng.



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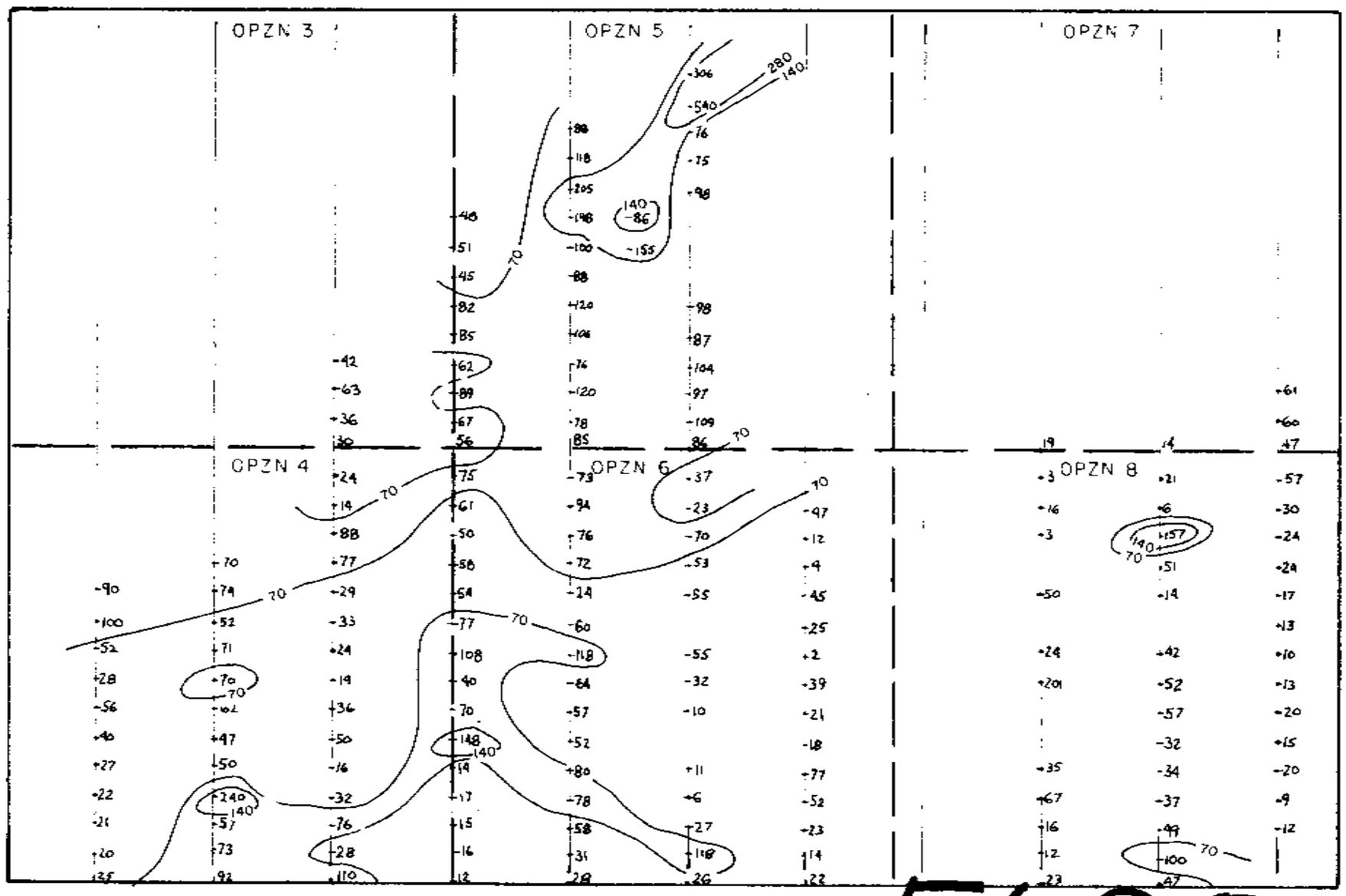
Revised by	Date	Revised by	Date

COPA GROUP
OPZN CLAIMS
LOCATION MAP

Scale: 1:50,000	Date: November, 1975	Plate: 1



5688 M-2

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5688 MAP 2

COPA CLAIMS

Threshold - 70 ppm Cu

N

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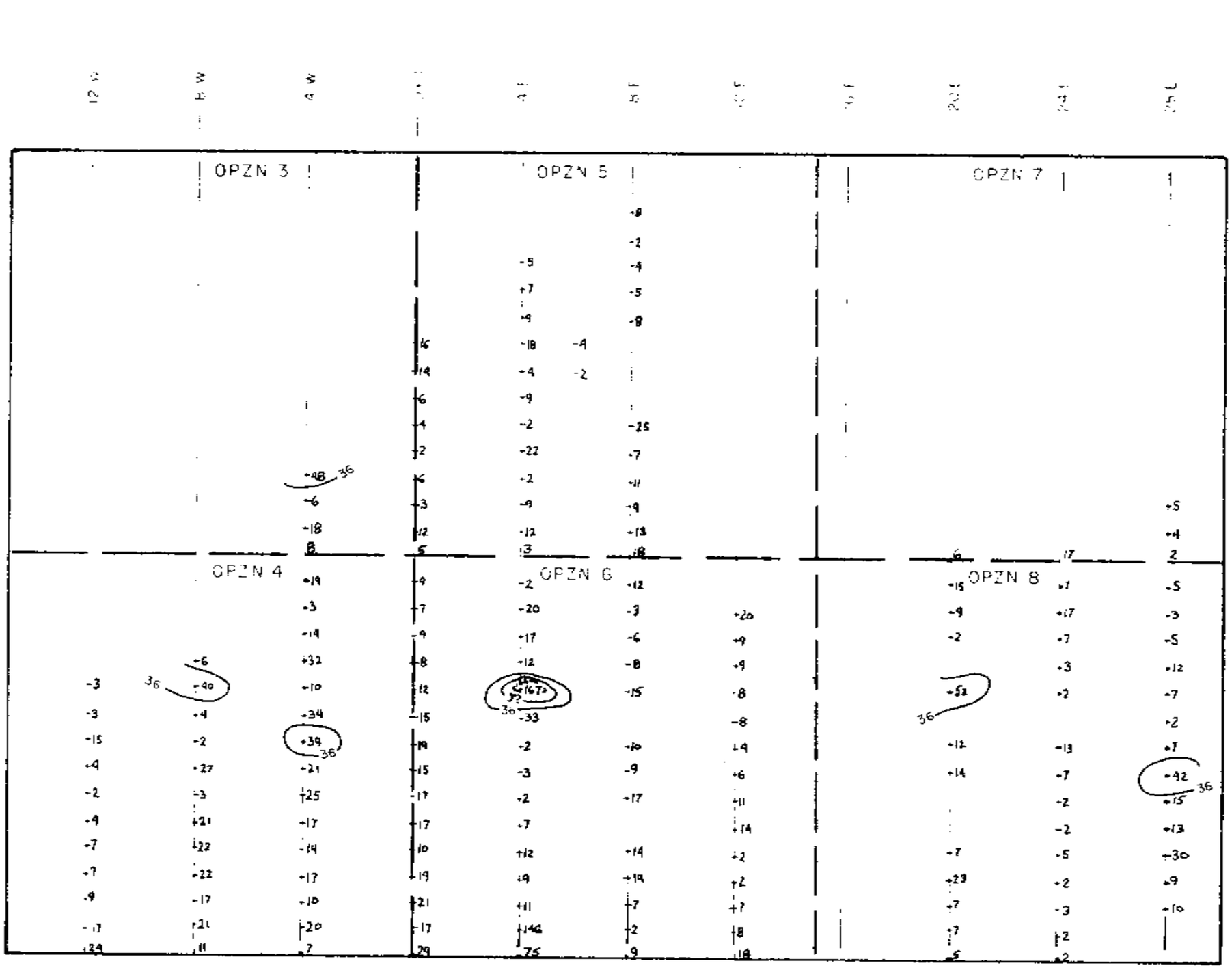
Revised by Date	Revised by Date

OPZN CLAIMS

Geochemistry – Ppm Cu

Scale 1" = 400' | Date October, 1975 | Plate 2



Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5688 MAP 3

Threshold - 36 ppm Pb

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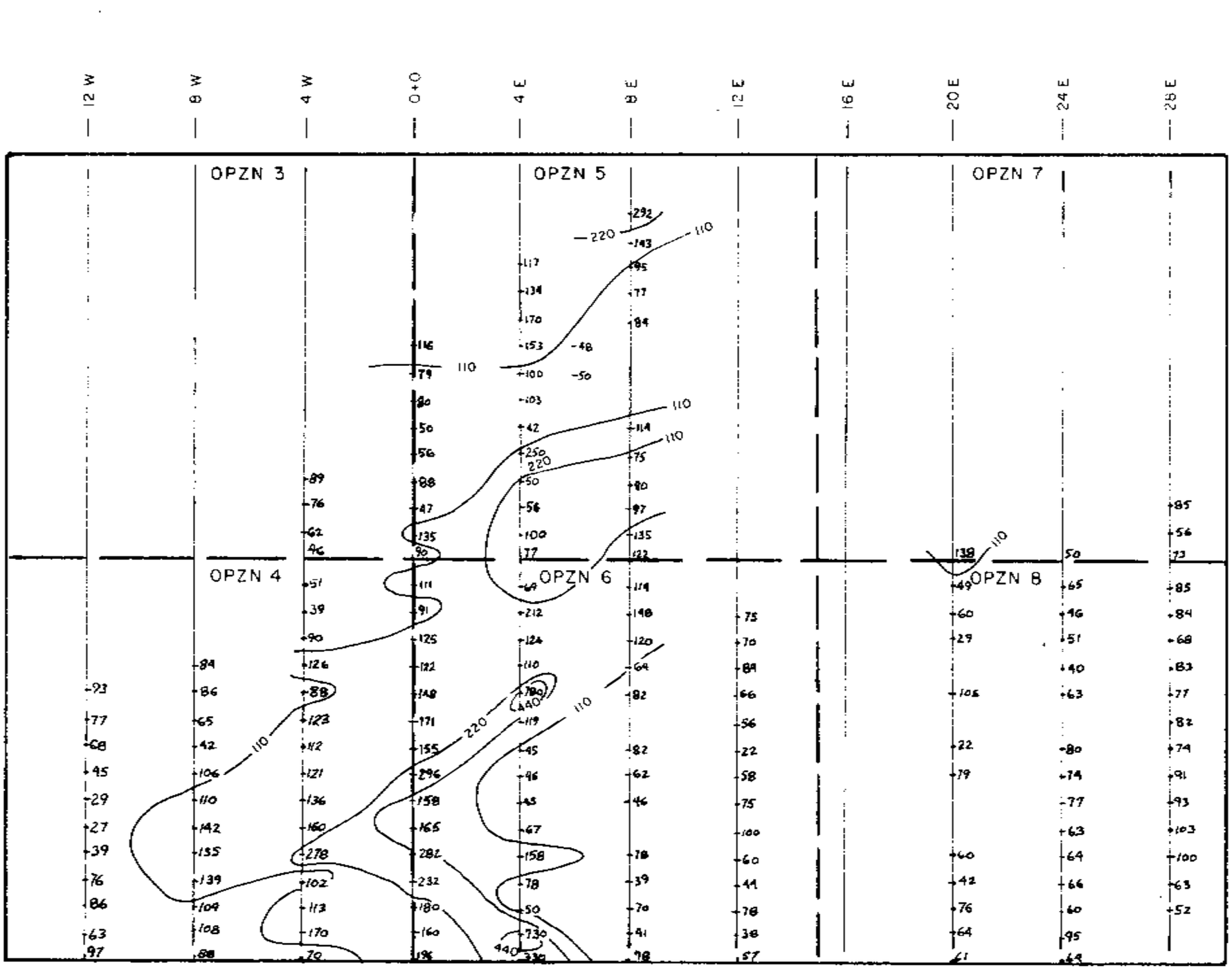
OPZN CLAIMS

Geochemistry - Ppm Pb

Scale 1" = 400' | Date October, 1975 | Plate 3



Threshold - 110 ppm Zn

To accompany report by N. L. Szabo N L Szabo

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82 F/15

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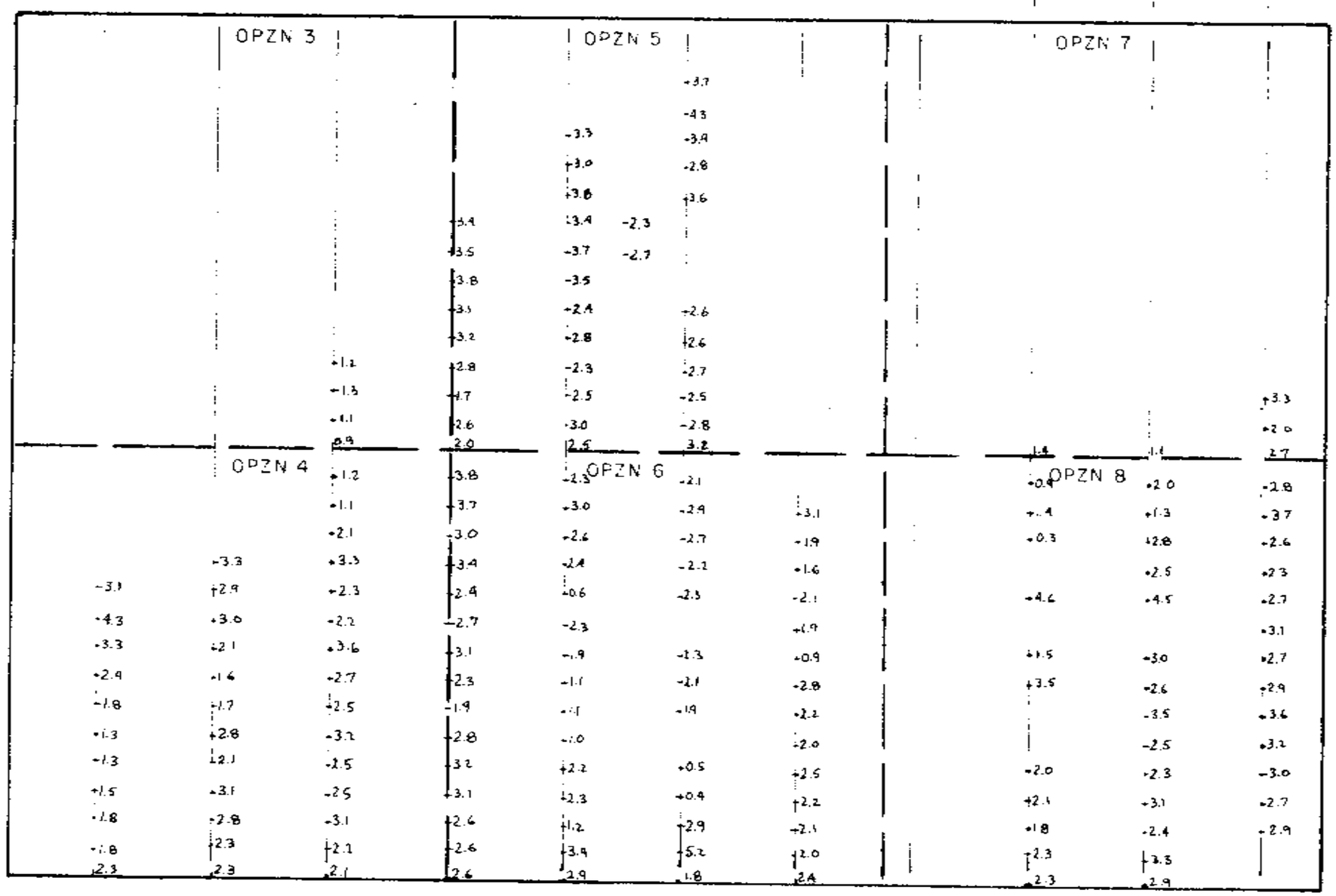
Revised by Date	Revised by Date	Geochemistry - Ppm Zn
		Scale 1" = 400' Date October, 1975 Plate 4



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5688 MAP 5

COPA CLAIMS

M L Szabo

COPA GROUP

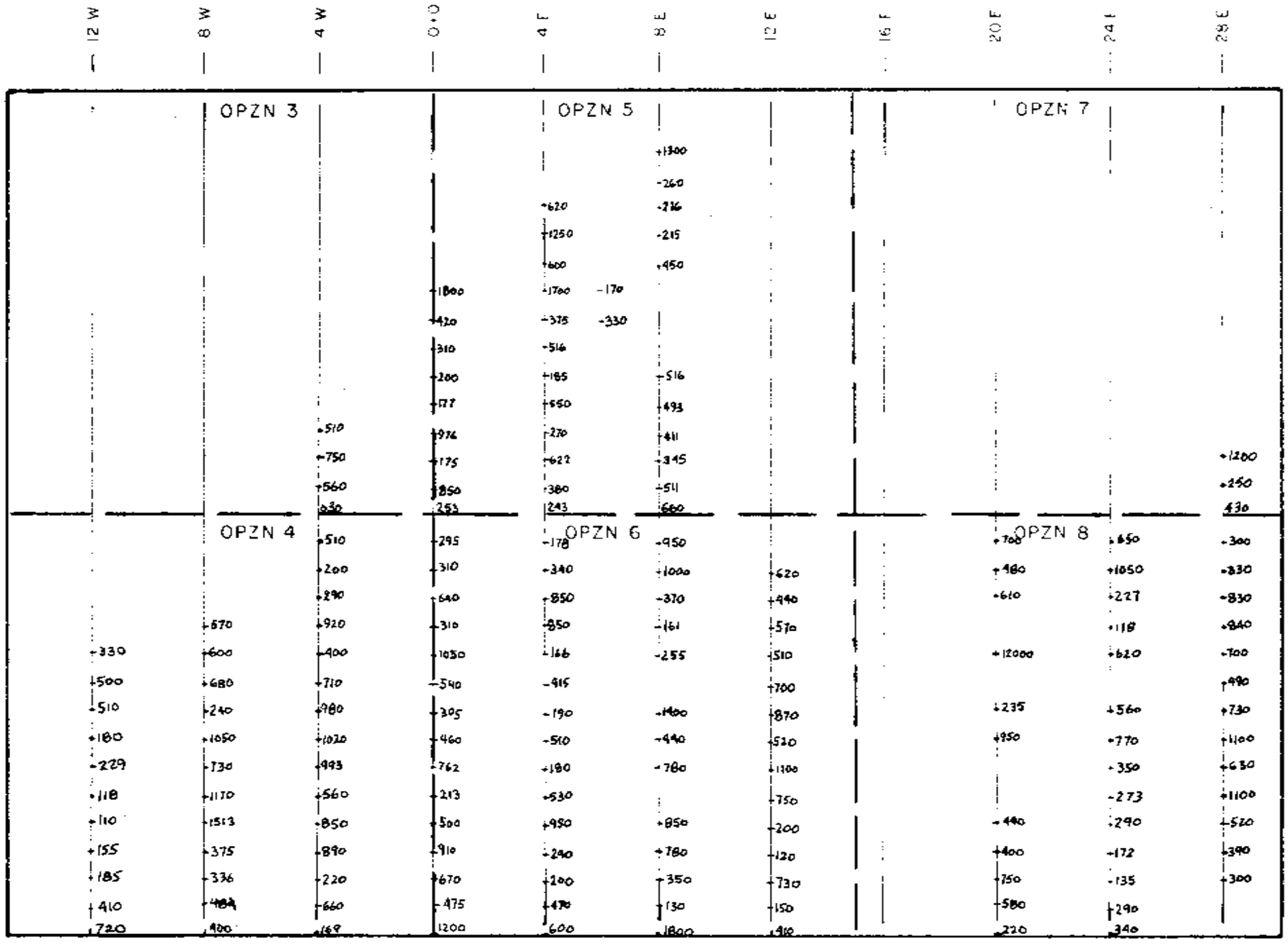
Cominco

Drawn by	Traced by
Revised by Date	Revised by Date

OPZN CLAIMS

Geochemistry — % Fe

Scale 1" = 400' | Date October, 1975 | Plate 5



Accompanying report by N. E. Seale

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Revised by Date	Revised by Date

OPZN CLAIMS

Geochemistry - Ppm Mn

Scale 1" = 400' | Date October, 1975 | Plate 6