

4201

C O M I N C O L T D .

EXPLORATION

WESTERN DISTRICT

N.T.S. 94 G/12

SOIL GEOCHEMICAL SURVEY

ON THE CAY CLAIMS

LIARD M.D.

February 14, 1973

N.L. Szabo

PERIOD OF WORK

AUGUST 1ST TO JANUARY 31ST, 1973

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 4201 MAP \_\_\_\_\_

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## SOIL GEOCHEMICAL SURVEY ON THE CAY CLAIMS

### SUMMARY

A survey consisting of soil sampling was carried out on the Cay group. 980 samples were collected and a concurrent lead zinc anomaly was outlined.

### INTRODUCTION

The Cay group, consisting of 52 claims and two fractions, is located between the Prophet and Muskwa Rivers, approximately 140 miles north of Mackenzie, British Columbia. Access was by fixed wing from Mackenzie to Redfern Lake (115 miles) and from Redfern to the Cay group by helicopter (approximately 25 miles). No previous development was done on the property.

### GEOLOGY

The Cay group is underlain by the Besa River, Dunedin and Stone formations of Devonian age. The Besa River Formation consists of non-calcareous black shales. Conformably underlying the Besa River is the Dunedin Formation. This formation consists of very finely crystalline limestone, dark gray to black, well bedded in one to two foot beds, and brecciated in places. The Stone Formation conformably underlies the Dunedin Formation. This formation on the property is a finely to densely crystalline, light gray to medium gray, well bedded dolomite. On the property this sequence is folded into an anticline plunging steeply to the west. Low grade mineralization with occasional high grade pods has been noted in the Dunedin Formation.

### GEOCHEMISTRY

#### Method

The survey was conducted by L. Sostad and assistants under the supervision of the writer. Baselines were put in by chain and compass and the lines were by pace and compass. Lines were spaced at 400' intervals and the sample spacing along the lines were at 200' intervals. Samples were collected from the B<sub>1</sub> horizon.

#### Sample Preparation and Analysis

All samples were first dried then sieved. The -80 mesh fraction was then analyzed for hxB<sub>t</sub>, hxB<sub>z</sub>, hxB<sub>a</sub> and hxB<sub>m</sub> by atomic absorption, using a hot nitric acid attack. Statistical analysis of the data gave the following thresholds (X + 2S): B<sub>t</sub> = 49 ppm, B<sub>z</sub> = 205 ppm, and B<sub>a</sub> = 0.9 ppm. No threshold was derived for Mn.

### DATA PRESENTATION

Plate 1	- Location Map, Cay Claims	1" approx. = 82 Miles
Plate 2	- Lead Geochemistry	1" = 500'
Plate 3	- Zinc Geochemistry	1" = 500'
Plate 4	- Silver Geochemistry	1" = 500'
Plate 5	- Manganese Geochemistry	1" = 500'

...continued...

Results

Anomalous results in both lead and zinc were found to extend for five claim lengths. The lead and zinc anomalies showed fairly good correlation whereas the silver anomalies turned out to be small and scattered and showed only a very rough correlation with the other anomalies. None of the metals showed correlation with the manganese content of the samples.

CONCLUSIONS

Coincident lead zinc anomalies were located on the property, however, without a more detailed knowledge of the geology on the property the significance of these anomalies is not known.

Submitted by N. L. Szabo  
N.L. Szabo  
Geochemist

Endorsed for  
Release by W.T. Irvine  
W.T. Irvine, P. Eng.  
Manager,  
Western District,  
Exploration

ATTACHMENTS

Plate 1 - Location Map, Cay Claims 1" approx. = 82 Miles  
Plate 2 - Lead Geochemistry 1" = 500'  
Plate 3 - Zinc Geochemistry 1" = 500'  
Plate 4 - Silver Geochemistry 1" = 500'  
Plate 5 - Manganese Geochemistry 1" = 500'  
Exhibit "A"

February 14, 1973

NLS/mjw

DISTRIBUTION

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

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

**In the Matter of**

STATUTORY DECLARATION RELATING  
TO EXPENDITURES ON THE GEOCHEMICAL  
SURVEY ON THE CAY CLAIMS,  
LIARD MINING DISTRICT.

I, NICHOLAS LOUIS SZABO

of City of Vancouver

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 Liard 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 survey 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 British Columbia, this 20<sup>th</sup>  
day of February 1973, A.D.

*Nicholas L Szabo*

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

C O M I N C O L T D.

EXPLORATION

WESTERN DISTRICT

EXHIBIT "A"

COST PER GEOCHEMICAL SAMPLE

CAY CLAIMS

LIARD MINING DISTRICT

N.T.S. - 94 G/12

123° 55' W, 57° 43' N

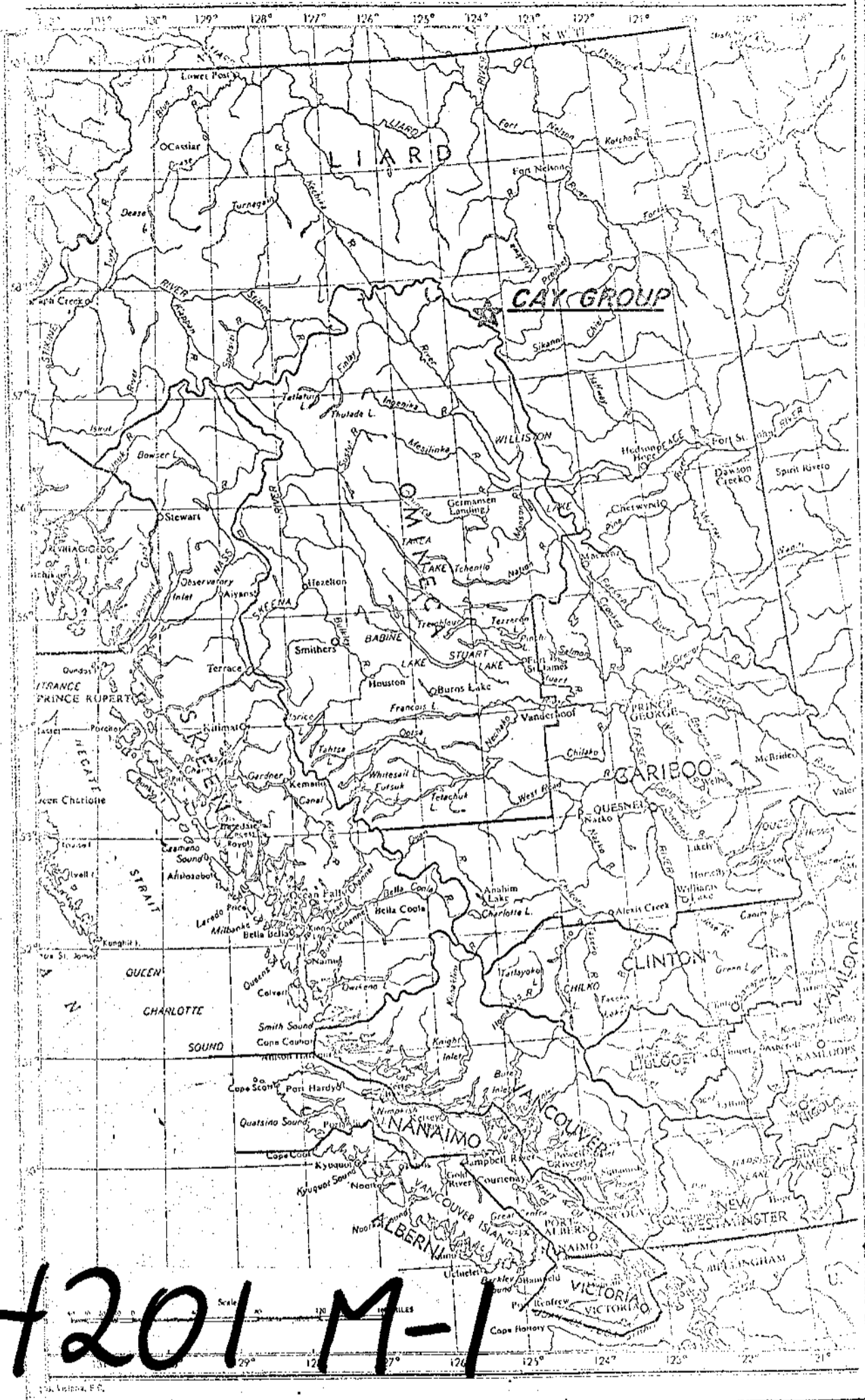
Wages for N.L. Szabo, Project Geologist 5 man days at \$80/day	\$ 400.00
Wages for L. Sostad and D. Pighin 14 man days at \$57/day	\$ 798.00
Wages for R. Beaty and M. Rickenbak 10 man days at \$42/day	\$ 420.00
Drafting, 3 man days at \$45/day	\$ 135.00
Transportation, fixed wing and helicopter	\$ 950.00
Domicile	\$ 400.00
Report Writing	\$ 100.00
Analythical Costs - 933 Samples at \$2.15	\$2,005.95
- 47 Samples at \$1.90	\$ 89.30
TOTAL -	<u>\$5,298.25</u>

SAMPLING AND ANALYSIS WERE DONE BETWEEN  
AUGUST 1st, 1972 TO JANUARY 31st, 1973

Signed: Nicholas L Szabo  
N. L. Szabo,  
Geochemist

THIS IS EXHIBIT "A" TO THE STATUTORY DECLARATION OF NICHOLAS L. SZABO  
DECLARED BEFORE ME THIS 20 DAY OF February 1973.

Jan Paul SUB-MINING RECORDER  
A COMMISSIONER FOR TAKING  
AFFIDAVITS FOR BRITISH COLUMBIA



4201 M-1

N L Szabo

CAY CLAIMS



Drawn by:	Traced by:
Drawn by: [blank]	Traced by: Ozle

LOCATION MAP

Scale: As shown	Date: December, 1972	Plate: 1
-----------------	----------------------	----------

124°00' ← North West corner  
92G-12W  
94



94 G 12 W

Drawn by: \_\_\_\_\_

Checked by: \_\_\_\_\_

Scale: \_\_\_\_\_

Date: \_\_\_\_\_

CAY CLAIMS

CAY 1-52 CAY FRACT. 1x2

Section: \_\_\_\_\_ Date: \_\_\_\_\_



COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

I have reviewed N.L. Szabo's report "Soil Geochemical Survey on the Cay Claims, Liard Mining District", and concur with the interpretation and conclusions.

*D.W. Heddle*

\_\_\_\_\_  
D.W. Heddle, P. Eng.  
Chief Geologist  
Western District, Exploration

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4201	MAP .....

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

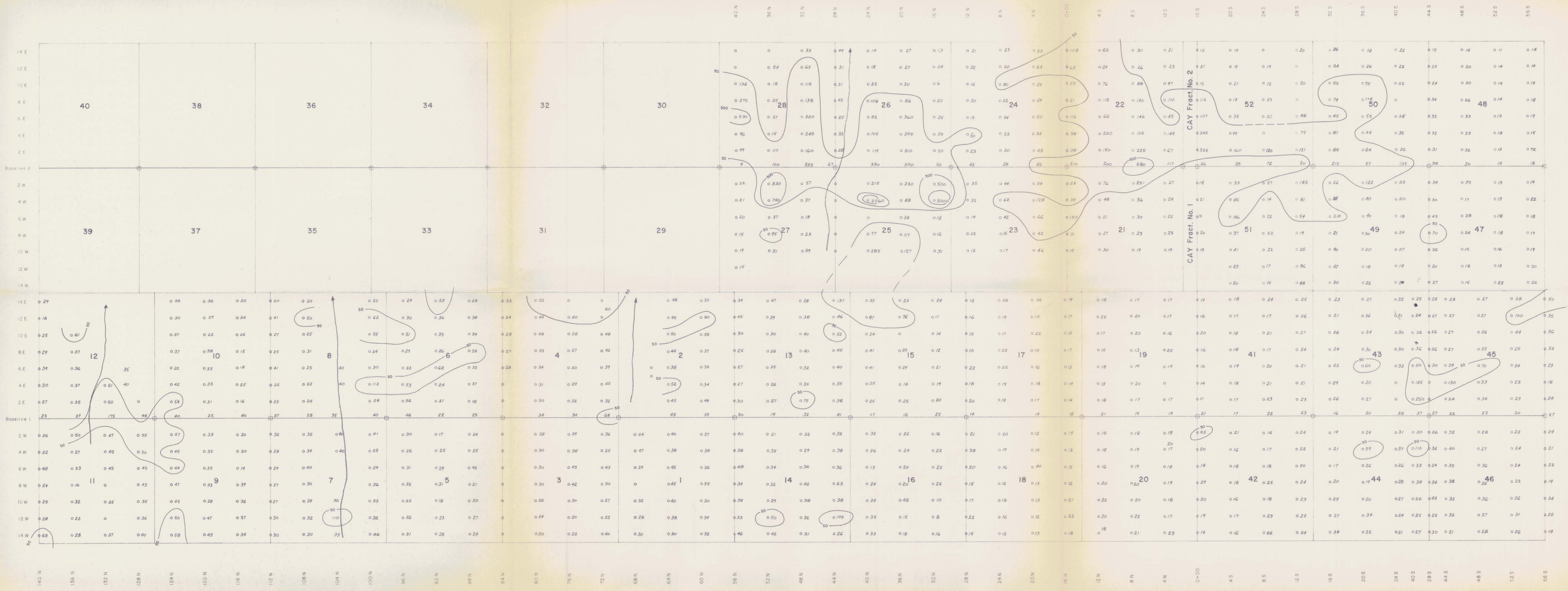
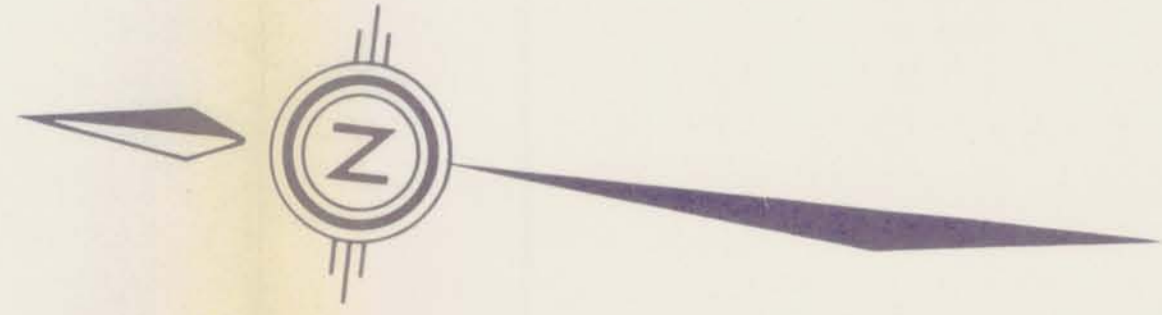
STATEMENT OF QUALIFICATIONS

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.

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4201	MAP



4201 M-2

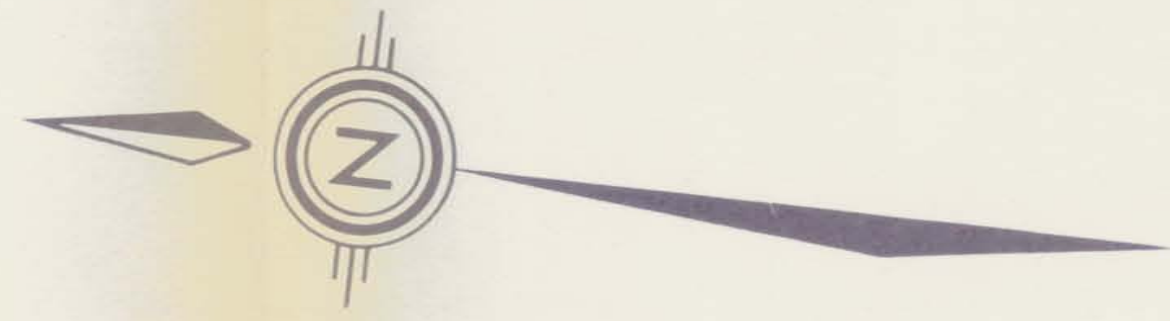
— 1000 p.p.m.  
— 500 p.p.m.  
— 50 p.p.m. (threshold)

NOTE: To accompany a report by N. L. Szabo  
Values are in parts per million

N. L. Szabo

Drawn by: R.J.B.	Traced by: J. Morgan
Checked by: [ ]	Reviewed by: [ ]
Date: [ ]	Date: [ ]
Scale: 1" = 500'	Date: November, 1972
Plate: 2	

CAY GROUP  
SOIL GEOCHEMISTRY ( Pb )



4201 M-3

NO 1150  
1-3-48  
KCHL  
Mines and Minerals Division  
Department of  
Energy and  
Mines

NOTE: To accompany a report by N.L. Szabo  
Values are in parts per million

— 2000 ppm  
— 1000 ppm  
— 205 ppm (threshold)

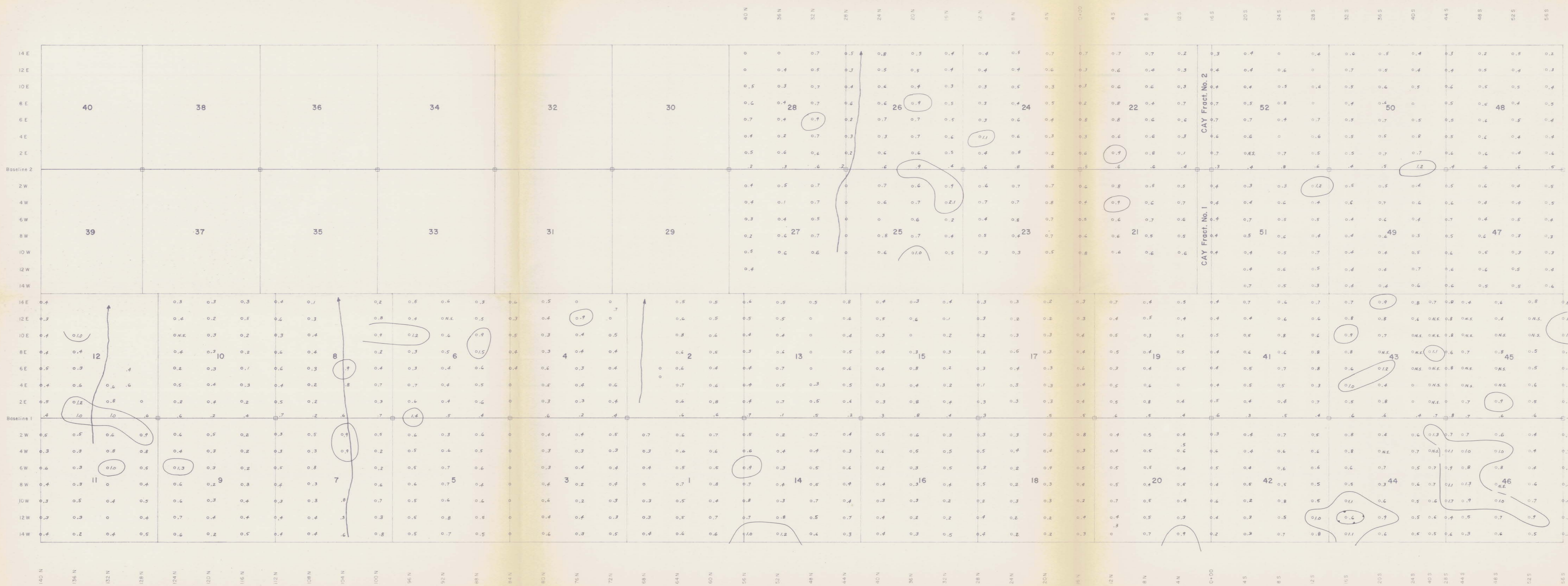
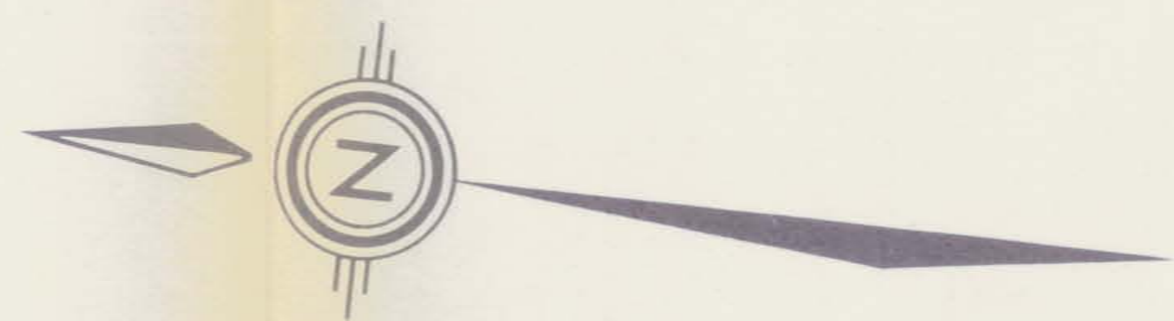
Drawn by: R.J.B.	Traced by: T. Bjorgen
Revised by: _____	Revised by: _____
Date: _____	Date: _____

Scale: 1" = 500'

Date: November, 1972

Plate: 3

CAY GROUP  
SOIL GEOCHEMISTRY (Zn.)



NO. 4201  
417  
1000  
WATER AND SOIL ANALYSIS  
LABORATORY

4201 M-4

0.9 ppm. — threshold

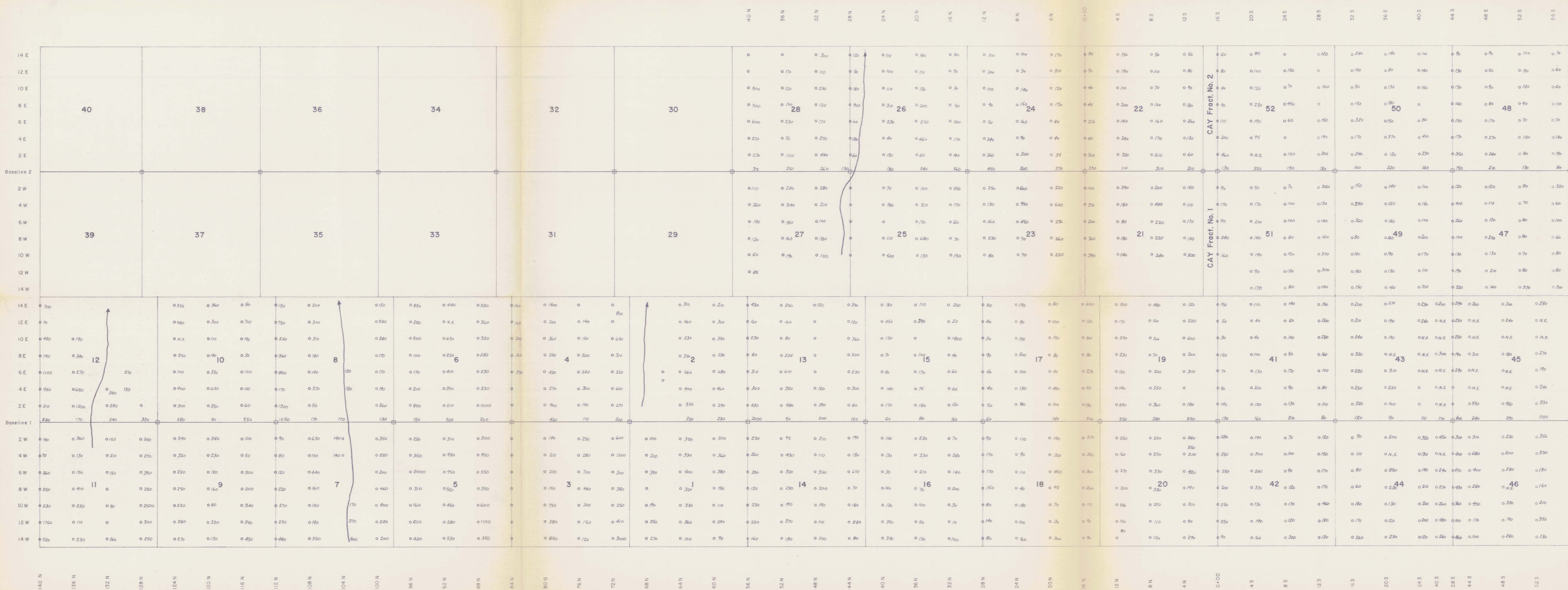
NOTE: To accompany a report by H. Szabo  
Values are in parts per million.

H. Szabo

Drawn by	Checked by	Traced by	Reviewed by
R.J.B.		T. Bjorgan	

CAY GROUP  
SOIL GEOCHEMISTRY (Ag.)

Scale: 1" = 500' Date: November, 1972 Plate: 4



100 FT  
2 1/2 IN  
KOH  
100 FT

# 4201 M-5

NOTE: To accompany a report by N.L. Szabo  
Values are in parts per million

Drawn by: R.J.B.	Traced by: T.Bjorgen	
Checked by: [ ]	Reviewed by: [ ]	
CAY GROUP SOIL GEOCHEMISTRY (Mn.)		
Scale: 1" = 500'	Date: November, 1972	Plate: 5