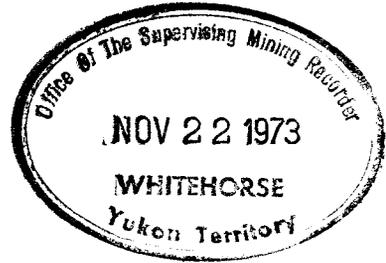


DOLMAGE CAMPBELL & ASSOCIATES LTD.  
CONSULTING GEOLOGICAL & MINING ENGINEERS  
1000 GUINNESS TOWER  
VANCOUVER I. B.C.



Geochemical Report  
on the  
POS MINERAL CLAIMS  
Nos. 7-14 inclusive  
95-102 inclusive

Claim Sheet No. 105 I-12



SUMMIT LAKE AREA  
Watson Lake Mining Division  
Yukon Territory

62° 35' N. Lat., 129° 50' W. Long.

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 \$ 3050.45

*R.B. Craig*  
Resident Geologist or  
Resident Mining Engineer

Considered as representation work under Section 23 (4) Yukon Quartz Mining Act.

*R.S. Adamson*  
Supervision and Report by: Commissioner of Yukon Territory  
R.S. Adamson, P. Eng.

Owner of Claims:  
Mr. L. Hart

Work completed between Sept. 6 and Sept. 10, 1973.

October 26, 1973.

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INTRODUCTION

A geochemical soil survey was carried out on the POS claim block by Dolmage Campbell & Associates Ltd. during the period September 6 to September 10, 1973. A total of four men were employed sampling the property: F. Diamond 'C, J. Sanford, C. Ollie, and J. Steariak. The project was undertaken under the field direction of Mr. J.B. Kirkland and the supervision of the writer.

The property, comprising 16 contiguous mineral claims, is situated within a few miles of the boundary between the Yukon and Northwest Territories, approximately 200 miles north of Watson Lake, Y.T. Present access to the property consists of flying directly by helicopter, usually from nearby Summit Lake, Y.T., which is suitable for float aircraft. The nearest road lies 50 miles southeast near the Canada Tungsten mine.

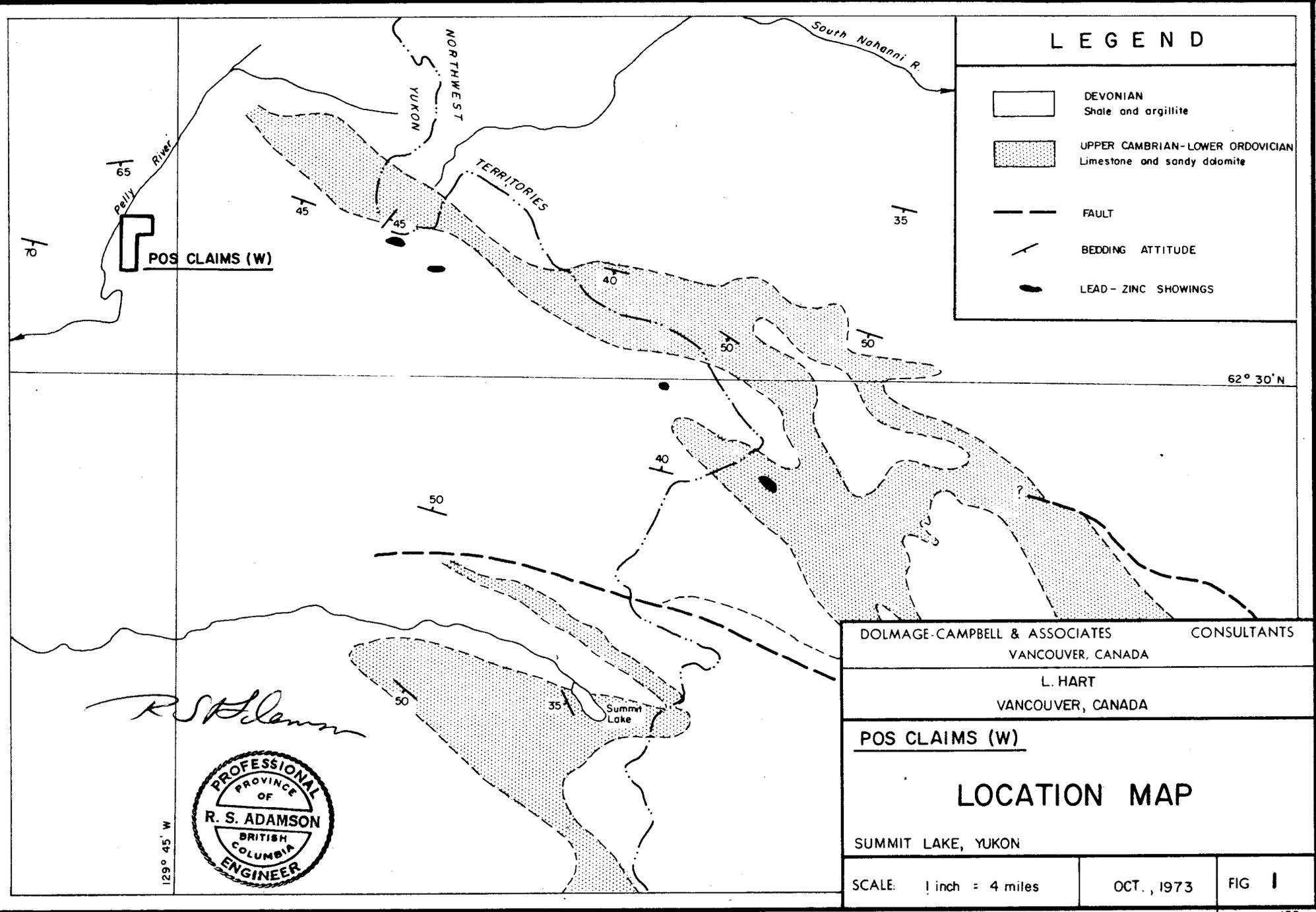
The property covers the east wall of Pelly River valley. Elevations range from 4000 feet at the valley level on the west half of the property to in excess of 5000 feet at the eastern perimeter of the property. For the most part the property is thickly-wooded.

No previous work is known to have been done on the property. It was staked in early 1973 on the basis of the discovery of stratiform-type zinc-lead deposits located a few miles to the southeast by Canex-Placer Ltd.

GEOLOGICAL SETTING

The geological setting of the Summit Lake zinc-lead district comprises essentially two rock formations; an argillaceous unit ranging in age possibly from the Upper Ordovician to the Mississippian (but predominately Devonian), and an older carbonaceous unit which is probably Cambrian in age.

The most extensive rock type in the area, the argillaceous unit, is black-grey shale that is extensively regionally metamorphosed to argillite with well developed foliation. The argillite is noticeably harder than the unmetamorphosed shale and is locally pyritic; otherwise, the two rock types are not readily distinguished in the field by casual observation. Most of the rock exposed in the area



**LEGEND**

-  DEVONIAN  
Shale and argillite
-  UPPER CAMBRIAN-LOWER ORDOVICIAN  
Limestone and sandy dolomite
-  FAULT
-  BEDDING ATTITUDE
-  LEAD-ZINC SHOWINGS

DOLMAGE-CAMPBELL & ASSOCIATES CONSULTANTS  
VANCOUVER, CANADA

L. HART  
VANCOUVER, CANADA

POS CLAIMS (W)

**LOCATION MAP**

SUMMIT LAKE, YUKON

SCALE: 1 inch = 4 miles

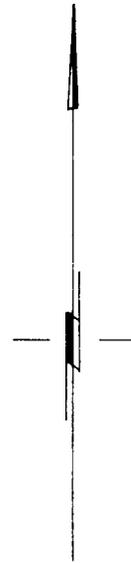
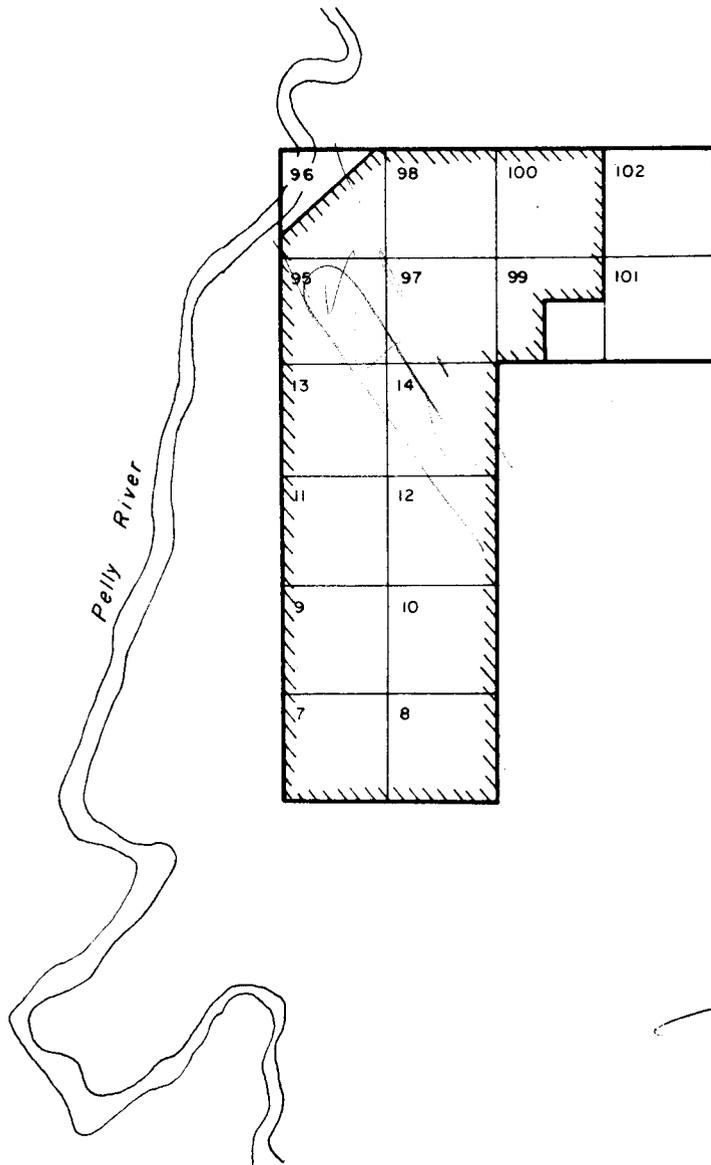
OCT., 1973

FIG 1

*R. S. Adamson*



129° 45' W



*R S Adams*



Surveyed Area

DOLMAGE-CAMPBELL & ASSOCIATES		CONSULTANTS
VANCOUVER, CANADA		
L. HART		
VANCOUVER, CANADA		
<u>POS CLAIMS (W)</u>		
<b>CLAIM MAP</b>		
SCALE: 1 inch = 1/2 mile	OCT., 1973	FIG 2

of the Summit Lake base metal occurrences is argillaceous and some is pyritic enough to have produced gossans. Local intense (isoclinal) folding of the shale-argillite sequence is common and, combined with the absence of distinct marker beds, makes precise stratigraphic positional determinations difficult in this sequence. Also, due to this difficulty of determining the proper sequence in the shale-argillite rocks it is likely that some of the rock units included in it may be as old as Ordovician and thus represent an orderly sequence from the underlying Cambrian rocks.

Of direct potentially-economic significance is a distinctive graptolitic shale formation that occurs near the base of the argillaceous sequence. It is this formation, Upper Ordovician in age, which hosts the presently known deposits on the nearby Canex-Placer claims. The distribution of this key formation throughout the district is, at best, relatively unknown, due primarily to its highly-erodable characteristics.

The Cambrian carbonaceous rocks, limestone and minor dolomite, that underlie the shale-argillite sequence are exposed as windows in the lower flanks of the ridges in northwest-trending bands. This relatively simple relationship is complicated by steep folding, by possible thrust faulting parallel to the northwest-trending contacts, and by topography because of the gentle southwest dip of the argillite-carbonate contact.

The geology of the POS property is relatively unknown because of the thickly-forested overburden cover which masks most of the property. However regional mapping in the general vicinity indicates that the property is probably underlain by rocks of the argillite unit.

## GEOCHEMISTRY

The soil survey was carried out over flagged lines spaced at 800 foot intervals, perpendicular to a northwest-striking flagged baseline which was established along a property location line. Sample stations were marked at 200 foot intervals using topofill chain and compass for control.

## SAMPLING AND ASSAYING TECHNIQUES

Soil samples were taken by first digging a hole with a mattock; a small handful of soil was then taken and packaged in a standard high wet-strength brown kraft paper sample bag. Wherever possible, samples were taken from the "B" soil

horizon. If the "B" horizon could not be reached the samples were taken from the "A" horizon and noted as such. The samples were sent to Chemex Labs Ltd. in North Vancouver for analysis.

At the assay laboratory the samples were dried at 110° F and then sieved to -80 mesh consistency through a nylon and stainless steel sieve. One-half gram of the dry pulp was weighed into a calibrated test tube and 3 mls. of perchloric acid and 1 ml. of nitric acid was added. The samples were digested initially at low heat and then at a temperature of 203° C. Digestion time was two to three hours. The digested samples were cooled, made up to 25 ml. volume with distilled water and the solutions thoroughly mixed. Analysis for lead and zinc were then done by Atomic Absorption procedures.

The results of the lead and zinc soil assays were interpreted visually.

### INTERPRETATION OF RESULTS

On the zinc geochemical map, (Figure 3), the assay results were plotted. Values were contoured at 500 and 1000 ppm. An anomaly with values ranging from above 1000 ppm to in excess of 4000 ppm zinc has been tentatively defined, that occurs on the northwestern quadrant of the property. Another smaller anomaly is indicated on the southern edge of the property.

Values on the map of the lead results, (Figure 4), were contoured at 35 ppm lead. Values generally occurred erratically; however, an anomaly of minor magnitude was defined visually in the northwestern quadrant of the property. Conceivably, it could be related to the nearby zinc anomaly.

## CONCLUSIONS

In view of the areal extent of the northwestern anomaly (2000 ft. x 600 ft.), of the relatively high values within the anomaly (+4000 ppm zinc), and of the suggested supporting relationship from the lead values it is evident that follow-up investigation of the anomaly should be undertaken. The cause and nature (transported or residual) should be established.

## RECOMMENDATIONS

The writer therefore proposes that the following exploration program be implemented:

- a) Define the northwestern anomaly more precisely by initiating more detailed sampling over the anomaly. Lines at 200 foot intervals with samples taken at 100 foot stations would be in order.
- b) Carry out hand trenching to bedrock followed by detailed visual prospecting over and above peak anomaly values.

Respectfully submitted,  
DOLMAGE CAMPBELL & ASSOCIATES LTD.



A handwritten signature in cursive script that reads "R. S. Adamson".

R. S. Adamson, P.Eng.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

In the Matter of

To Wit:

L. HART - POS MINERAL CLAIMS  
NOS. 7-14 inclusive  
NOS. 95-102 inclusive

I, R.S. ADAMSON

of #1000 - 1055 W. Hastings Street, Vancouver 1, B.C.

in the Province of British Columbia, do solemnly declare that  
Expenditures for work performed on the POS claims between Sept. 6 and Sept. 10, 1973  
are as follows:

WAGES - 12 man/days @ \$35.00	\$420.00	
5 man/days @ \$39.25	<u>\$196.25</u>	\$ 616.25
MAINTENANCE - 17 man/days @ \$15.00		\$ 255.00
TRANSPORTATION - HELICOPTER 6 hrs. 35 mins. @ \$160./hr.		\$1054.00
ASSAYING - 206 samples @ \$1.70		\$ 350.20
TYPING, SECRETARIAL, DRAUGHTING		\$ 150.00
SUPERVISION & REPORT		<u>\$ 625.00</u>
	TOTAL:-	<u>\$3050.45</u>

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 *14*  
day of *November*, 1973, A.D.

*R.S. Adamson*

*[Signature]*  
A Commissioner for taking Affidavits for ~~British Columbia or Yukon~~  
A Notary Public in and for the Province of British Columbia.

APPENDIX No. 2

DETAILED ACCOUNT OF EXPENDITURES

WAGES

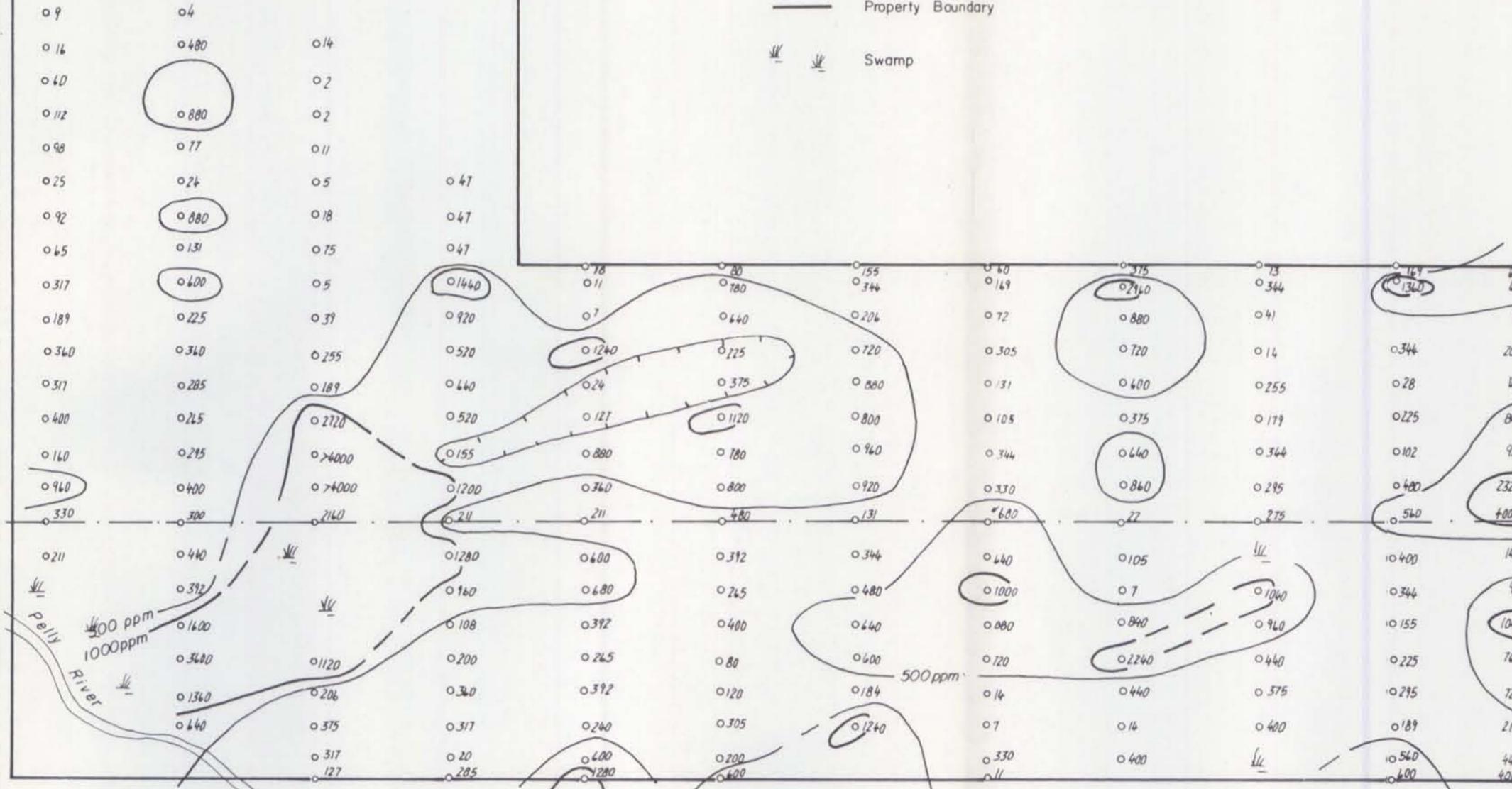
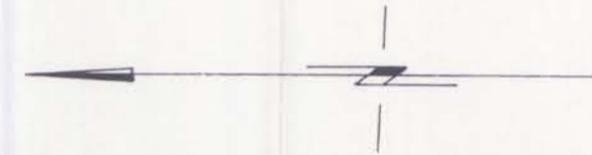
C. Ollie - General Delivery, Ross River, Y.T. 4 days @ \$35.00	\$140.00
J. Steariah - General Delivery, Ross River, Y.T. 5 days @ \$35.00	\$175.00
F. Diamond'C - Box 4509, Whitehorse, Y.T. 5 days @ \$39.25	\$196.25
J. Sanford - 4598 W 14th Ave., Vancouver, B.C. 3 days @ \$35.00	<u>\$105.00</u>
TOTAL:-	<u>\$616.25</u>

**LEGEND**

○155  
○344  
Soil Sample ppm Zn

— Property Boundary

≡ Swamp



128 E  
124 E  
120 E  
116 E  
112 E  
108 E  
104 E  
Base Line  
96 E  
92 E  
88 E

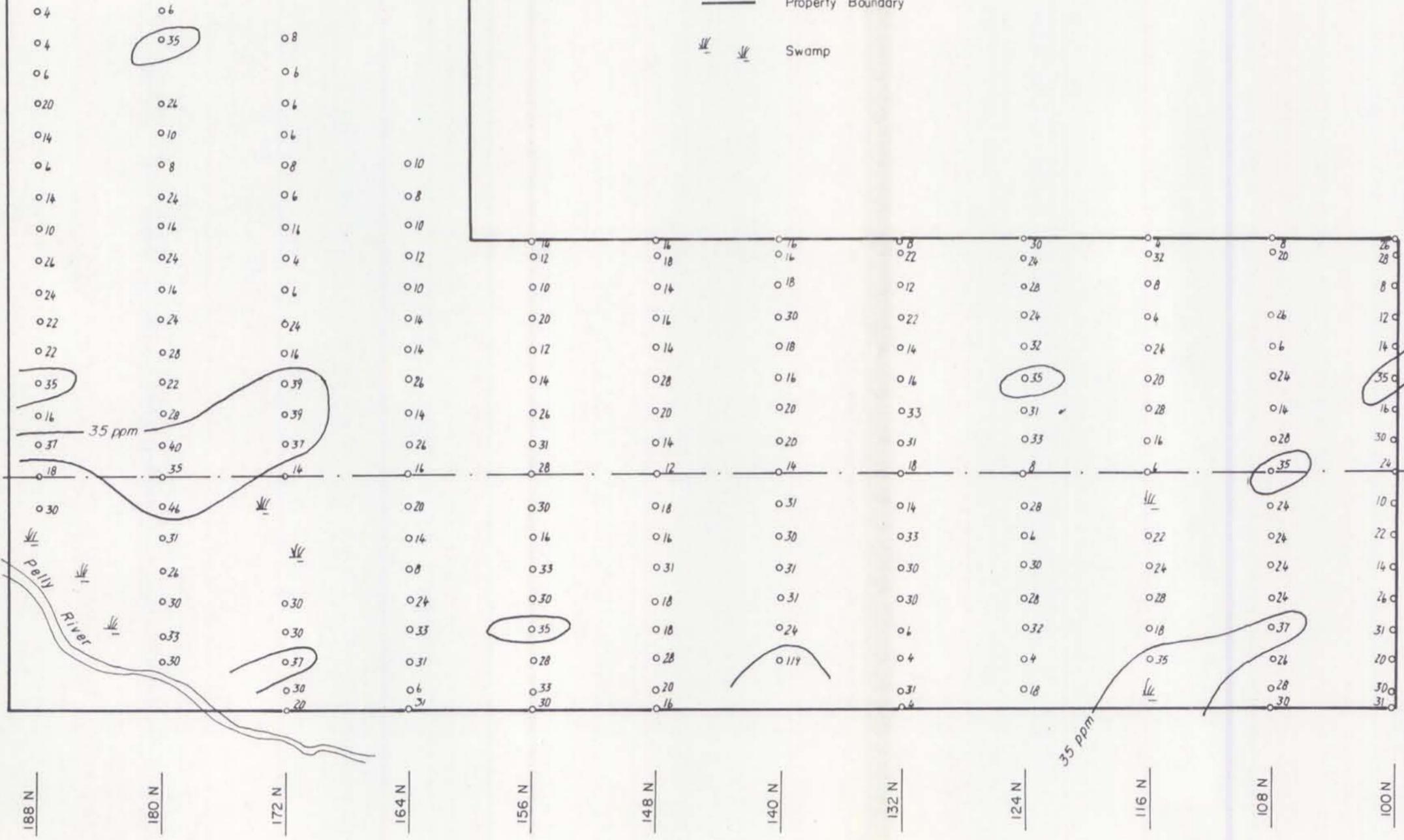
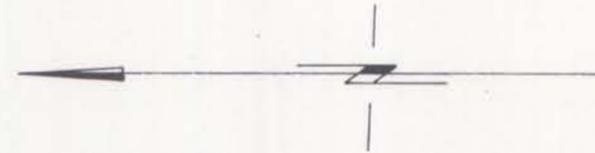
*R. S. Adamson*



DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
L. HART VANCOUVER, CANADA	
POS CLAIMS (W)	
<b>SOIL GEOCHEMISTRY ZINC</b>	
SCALE 1" = 800'	OCT., 1973
FIG. 3	

**LEGEND**

- 30 Soil Sample ppm Pb
- 24
- Property Boundary
- ⏟ Swamp



128 E  
124 E  
120 E  
116 E  
112 E  
108 E  
104 E  
Base Line  
96 E  
92 E  
88 E

*R. S. Adamson*



DOLMAGE CAMPBELL & ASSOCIATES LTD. CONSULTANTS VANCOUVER, CANADA	
L. HART VANCOUVER, CANADA	
POS. CLAIMS (W)	
<b>SOIL GEOCHEMISTRY LEAD</b>	
SCALE: 1" = 800'	OCT., 1973
FIG. 4	