

DOLMAGE CAMPBELL & ASSOCIATES LTD.

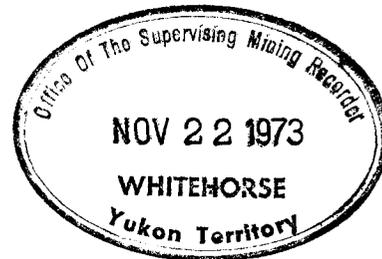
CONSULTING GEOLOGICAL & MINING ENGINEERS

1000 GUINNESS TOWER

VANCOUVER 1, B.C.

Geochemical Report  
on the  
POS MINERAL CLAIMS  
Nos. 63-94 inclusive

Claim Sheet No. 105 I-12



SUMMIT LAKE AREA  
Watson Lake Mining Division  
Yukon Territory

62° 30' N. Lat., 129° 45' W.

Owner of Claims:  
Mr. L. Hart

Supervision and Report by:  
R. S. Adamson, P.Eng.

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 \$ 3205.10

  
Resident Geologist or  
~~Resident Mining Engineer~~

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

  
Commissioner of Yukon Territory

Work completed between Sept. 5 and Sept. 9, 1973.

October 24, 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 5 and September 9, 1973. A total of five men were employed sampling the property: G. Bequette, P. Etzel, J. Dick, E. Olles, and B. Wigen. The project was undertaken under the field direction of Mr. J.B. Kirkland and the supervision of the writer.

The property, comprising 32 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.

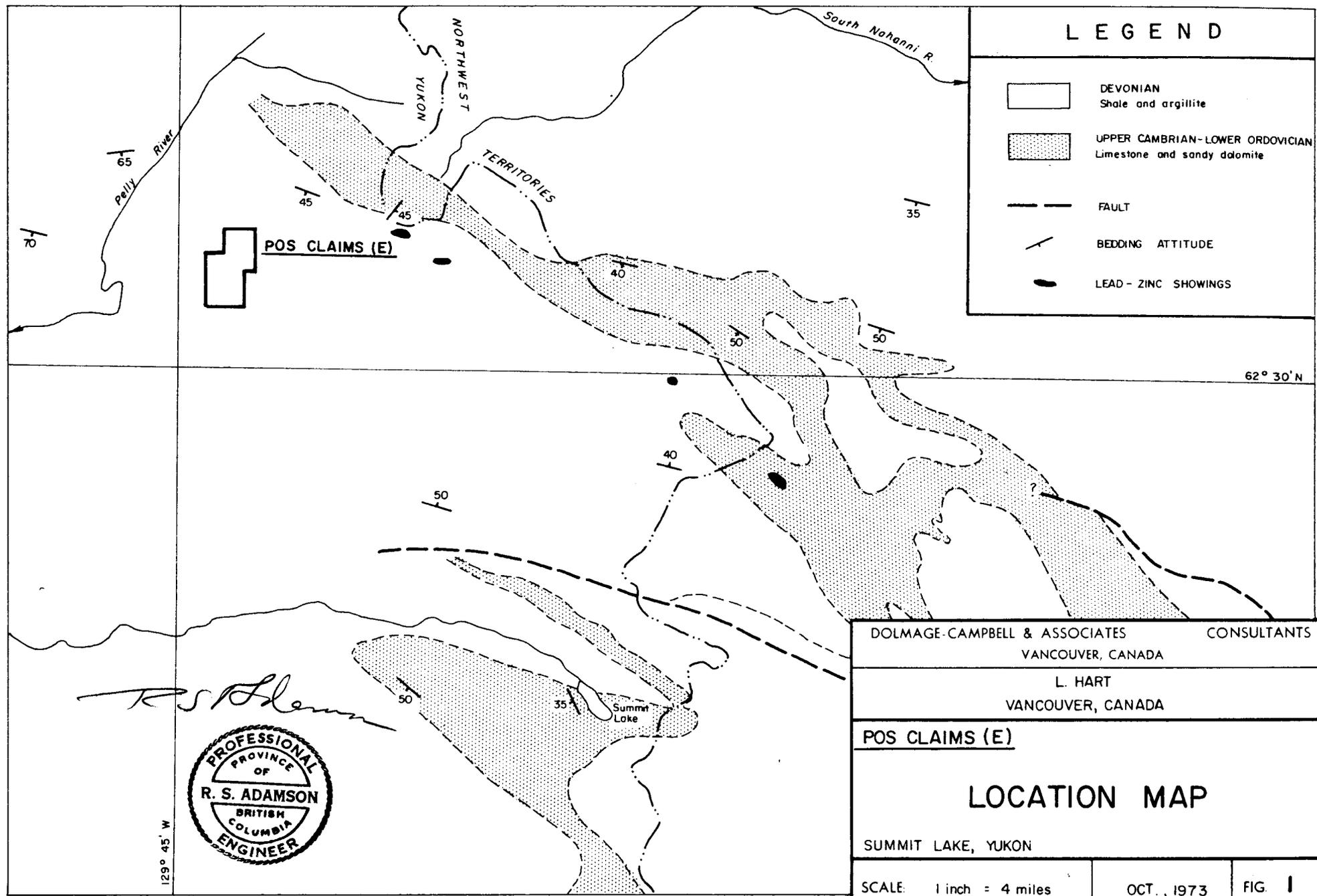
Four claims on the southern edge of the property are underlain by flat, swampy ground that forms part of a wide valley embracing a branch of the Pelly River. The property for the most part is thickly wooded; timberline at 5000 feet lies on the northern sector of the property, (Figure 1, 3 and 4).

No previous work has been done on the property, which was staked in early 1973 on the basis of the discovery of stratiform-type zinc-lead deposits 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

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L. HART  
VANCOUVER, CANADA

POS CLAIMS (E)

**LOCATION MAP**

SUMMIT LAKE, YUKON

SCALE: 1 inch = 4 miles

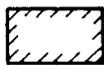
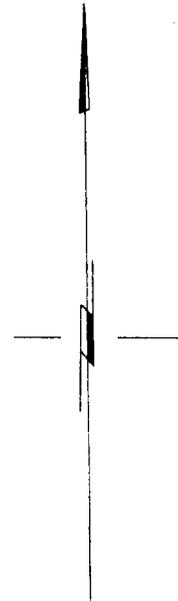
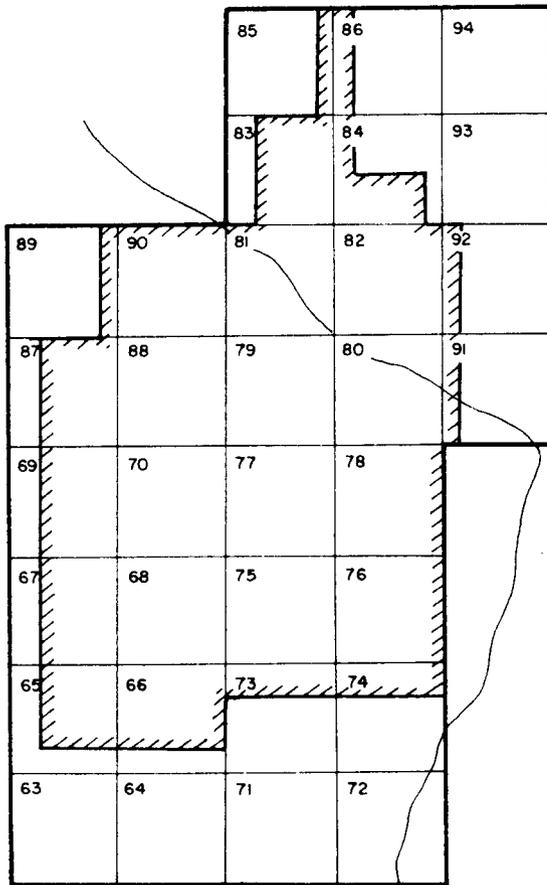
OCT., 1973

FIG. 1

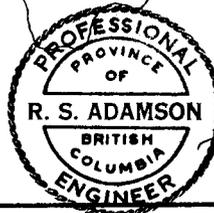


*R. S. Adamson*

129° 45' W



Surveyed Area



*R. S. Adamson*

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<u>POS CLAIMS (E)</u>		
<b>CLAIM MAP</b>		

SCALE	1 inch = 1/2 mile	OCT., 1973	FIG. 2
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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 masked somewhat by forested-overburden; however, the regional geology of the surrounding area and a few outcrop areas within the claim block indicate that the property is underlain predominately by rocks of the argillaceous unit. Shales have been noted on an easterly-trending ridge which traverses the central part of the property immediately south of the base line.

## GEOCHEMISTRY

The soil survey was carried out over flagged lines which were initially spaced at 800 foot intervals. An overburden-covered easterly-trending valley that lies north of the baseline was sampled along intermediate lines at 400 foot intervals, (Figure 3). Sample stations along all lines 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 results have been contoured at 2000 ppm zinc. A very strong, northeasterly-trending, well-defined zinc anomaly has been established. The dimensions of the anomaly, which is yet reconnaissance in nature, are approximately 450 feet in width and 3000 feet in strike length.

The lead values have been contoured at 30 ppm lead. The results for the most part appear to be spotty and insignificant. There is no obvious relationship between the lead and zinc values.

## CONCLUSIONS

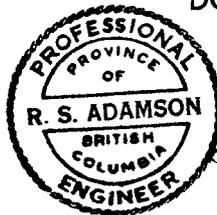
The cause of the well-defined zinc anomaly on the POS property has not been established. Because of the very high values, because of the strongly-suggested continuity, and because of the apparent dimensions of the anomaly, it is evident that further investigation of the anomaly is warranted.

## RECOMMENDATIONS

The writer therefore proposes that the following program be implemented in order that the cause of the anomaly may be determined.

- a) Carry out more definitive soil surveys over the anomaly with sample stations at 100 foot stations along lines established at 200 foot intervals.
- b) Initiate hand trenching to bedrock over or topographically-above peak values in these more precisely-defined anomalies.

Respectfully submitted,  
DOLMAGE CAMPBELL & ASSOCIATES LTD.



*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. 63-94 inclusive

I, R. S. ADAMSON

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

in the Province of British Columbia, do solemnly declare that

Expenditures for work performed on the POS claims between Sept. 5 and Sept. 9, 1973 are as follows:

WAGES - 10 man/days @ \$39.25	\$392.50	
5 man/days @ \$32.20	<u>\$161.00</u>	
		\$ 553.50
MAINTENANCE - Food and Lodging - 15 man/days @ \$15.00		\$ 225.00
TRANSPORTATION - Helicopter - 7 hrs. 10 mins. @ \$160./hr.		\$1145.00
ASSAYING - 298 Samples @ \$1.70		\$ 506.60
TYPING, SECRETARIAL, DRAUGHTING		\$ 150.00
SUPERVISION & REPORT		\$ 625.00
	TOTAL:-	<u>\$3205.10</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  
A Notary Public in and for the Province of British Columbia.

APPENDIX No. 2

DETAILED ACCOUNT OF EXPENDITURES

WAGES:

G. Bequette - Box 4509, Whitehorse, Y.T. 5 days @ \$39.25	\$196.25
P. Etzel - General Delivery, Ross River, Y.T. 5 days @ \$39.25	\$196.25
J. Dick - General Delivery, Ross River, Y.T. 5 days @ \$32.20	<u>\$161.00</u>
TOTAL:-	<u>\$553.50</u>

60 E 70 E 80 E 90 E 100 E 110 E

156 N

148 N

140 N

132 N

124 N

116 N

108 N

92 N

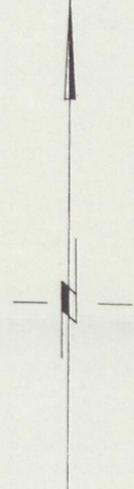
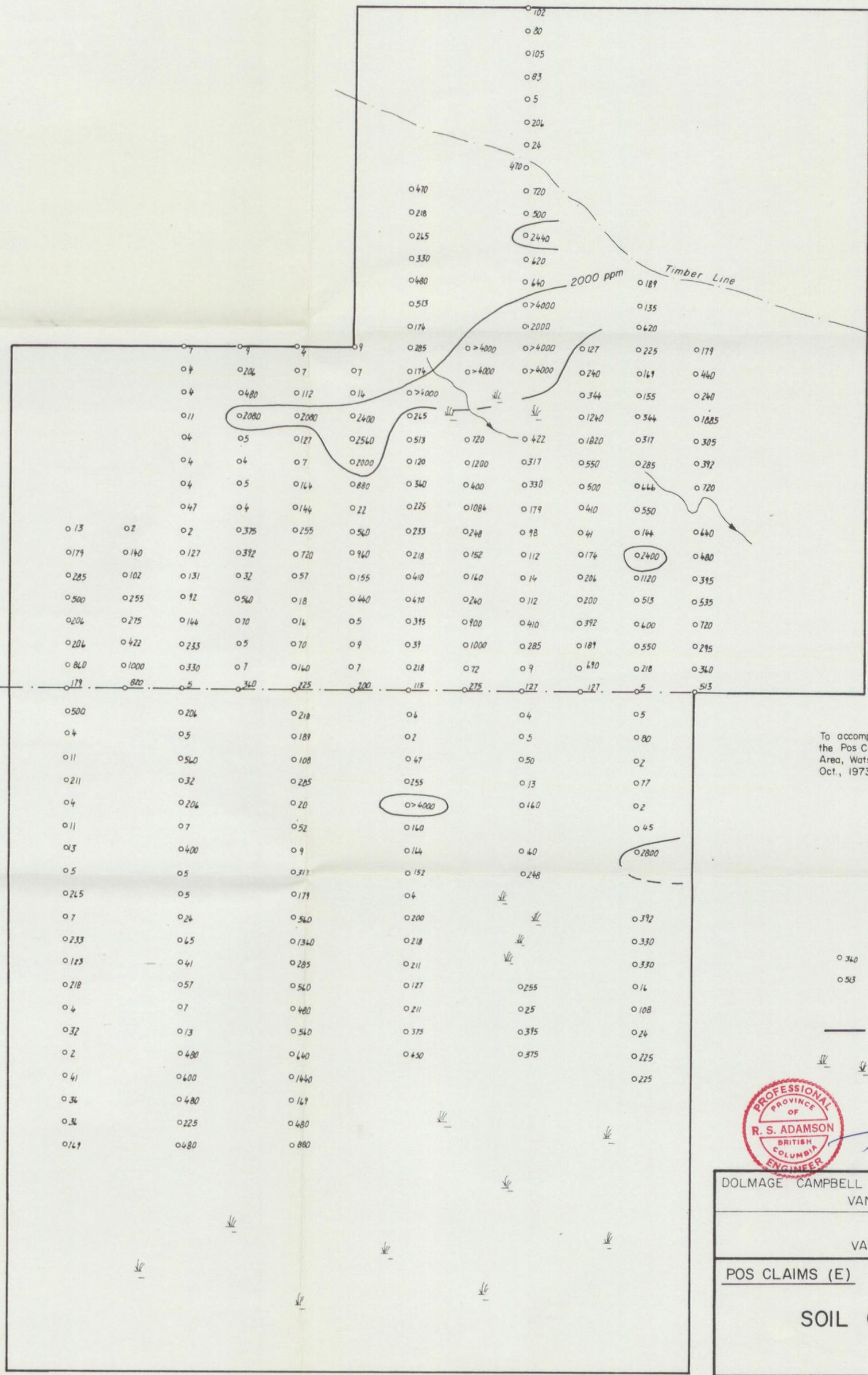
84 N

76 N

68 N

60 N

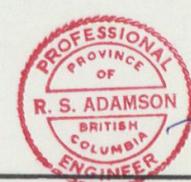
Base Line



To accompany Geochemical Report on the Pos Claims (E) in the Summit Lake Area, Watson Lake Mining Division, dated Oct., 1973, by R. S. Adamson, P.Eng.

**LEGEND**

- 360 Soil Sample ppm Zn
- 563 Soil Sample ppm Zn
- Property Boundary
- ~ Swamp



*R. S. Adamson*

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VANCOUVER, CANADA

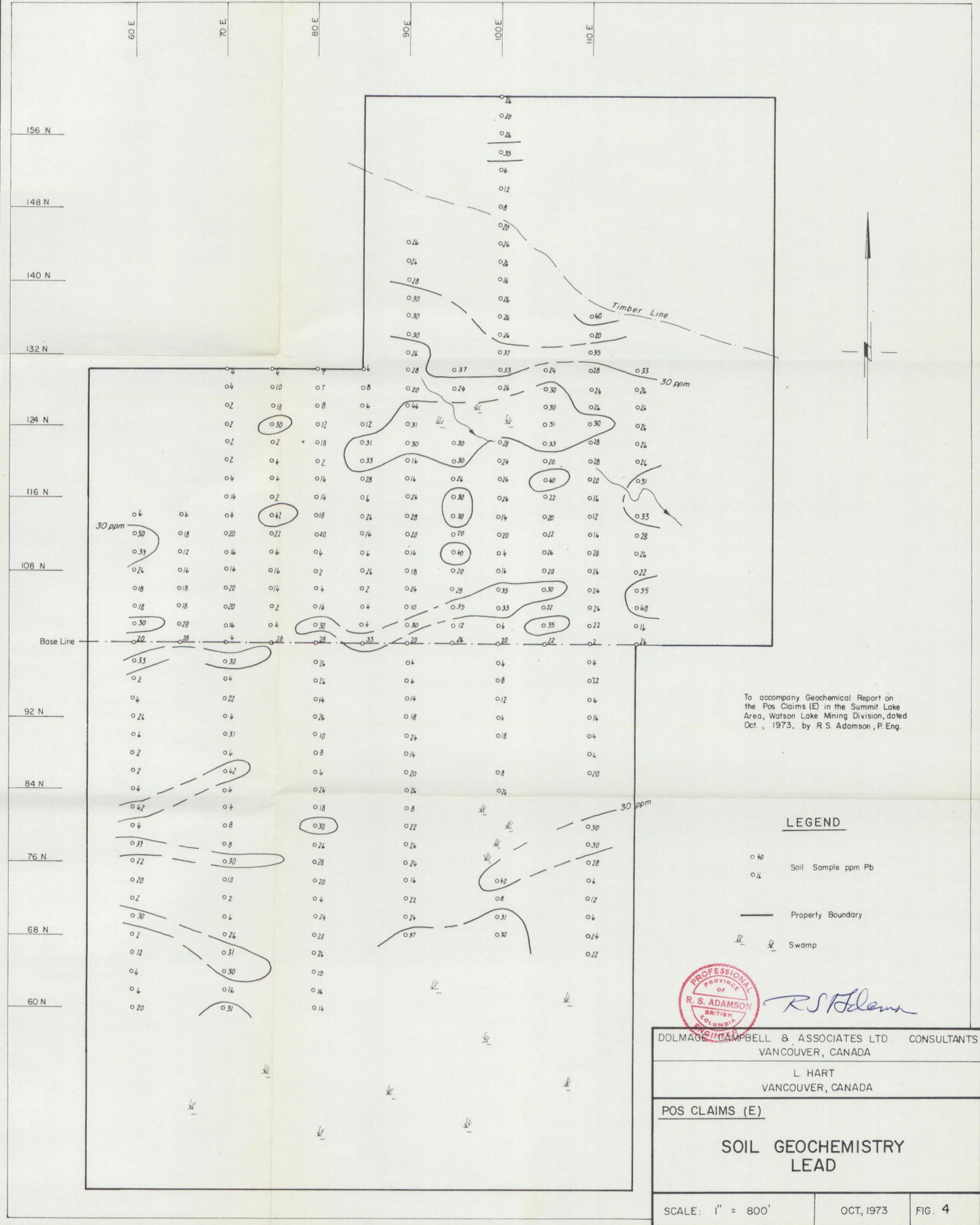
POS CLAIMS (E)

**SOIL GEOCHEMISTRY  
ZINC**

SCALE: 1" = 800'

OCT, 1973

FIG. 3



To accompany Geochemical Report on the Pos Claims (E) in the Summit Lake Area, Watson Lake Mining Division, dated Oct., 1973, by R. S. Adamson, P. Eng.

**LEGEND**

- 40 Soil Sample ppm Pb
- 16 Soil Sample ppm Pb
- Property Boundary
- ⌋ Swamp



*R. S. Adamson*

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VANCOUVER, CANADA

L. HART  
VANCOUVER, CANADA

POS CLAIMS (E)

**SOIL GEOCHEMISTRY  
LEAD**

SCALE: 1" = 800'

OCT, 1973

FIG. 4