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GEOLOGICAL REPORT

ON THE

FORD PROPERTY

Ootsa Lake Area  
Omineca Mining Division  
British Columbia

FOR

PACIFIC HOUSTON RESOURCES, INC.

BY

N.C. CARTER, PH.D. P.ENG.  
October 6, 1989

N.C. CARTER, Ph.D., P.Eng.  
CONSULTING GEOLOGIST

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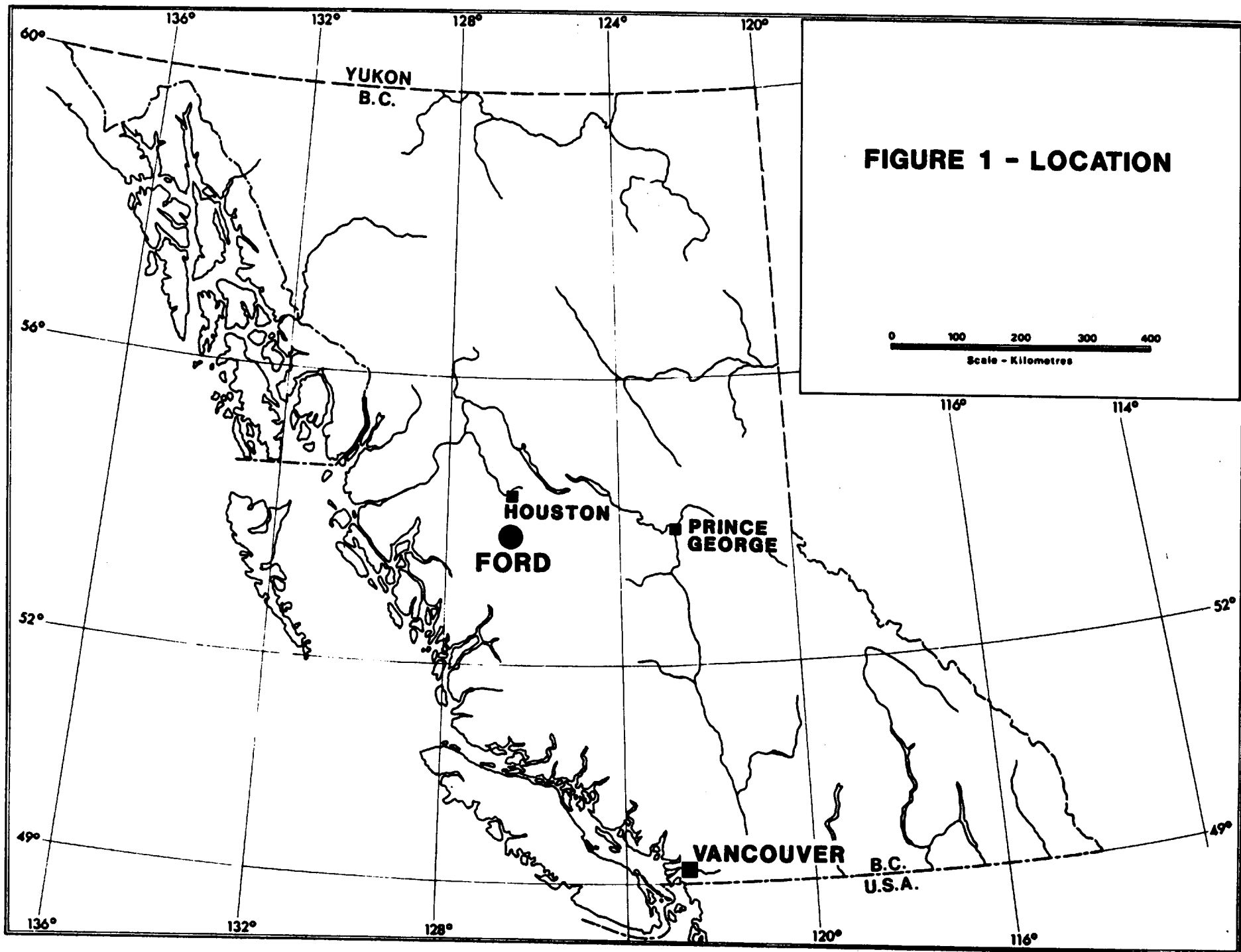
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SUMMARY

Pacific Houston Resources, Inc. owns the FORD property which is situated north of Ootsa Lake in west-central British Columbia.

The FORD claim is located in an area of the Province with demonstrated potential for porphyry copper - molybdenum and precious metals mineralization. Previous exploration work on the property has identified several areas with coincident anomalous values in soils for zinc and silver. The principal anomalous area is partly coincident with a zone of higher chargeabilities as defined by an Induced Polarization survey. Limited bedrock exposures consist of felsic volcanic rocks with disseminated pyrite.

Additional exploratory work is recommended to include detailed geological mapping where practical, backhoe trenching and diamond drilling at an estimated cost of \$170,000.00.



## INTRODUCTION

Pacific Houston Resources, Inc. owns the FORD property, consisting of six mineral claim units, and situated north of Ootsa Lake in west-central British Columbia.

This report, prepared at the request of Pacific Houston Resources, Inc., is based on a review of results of previous exploration work on and adjacent to the subject claim and on a recent report prepared by Edward O. Chisholm, P.Eng. which includes recommendations for additional work. Several published reports and maps on the geological setting of the property area have also been referred to in the report preparation.

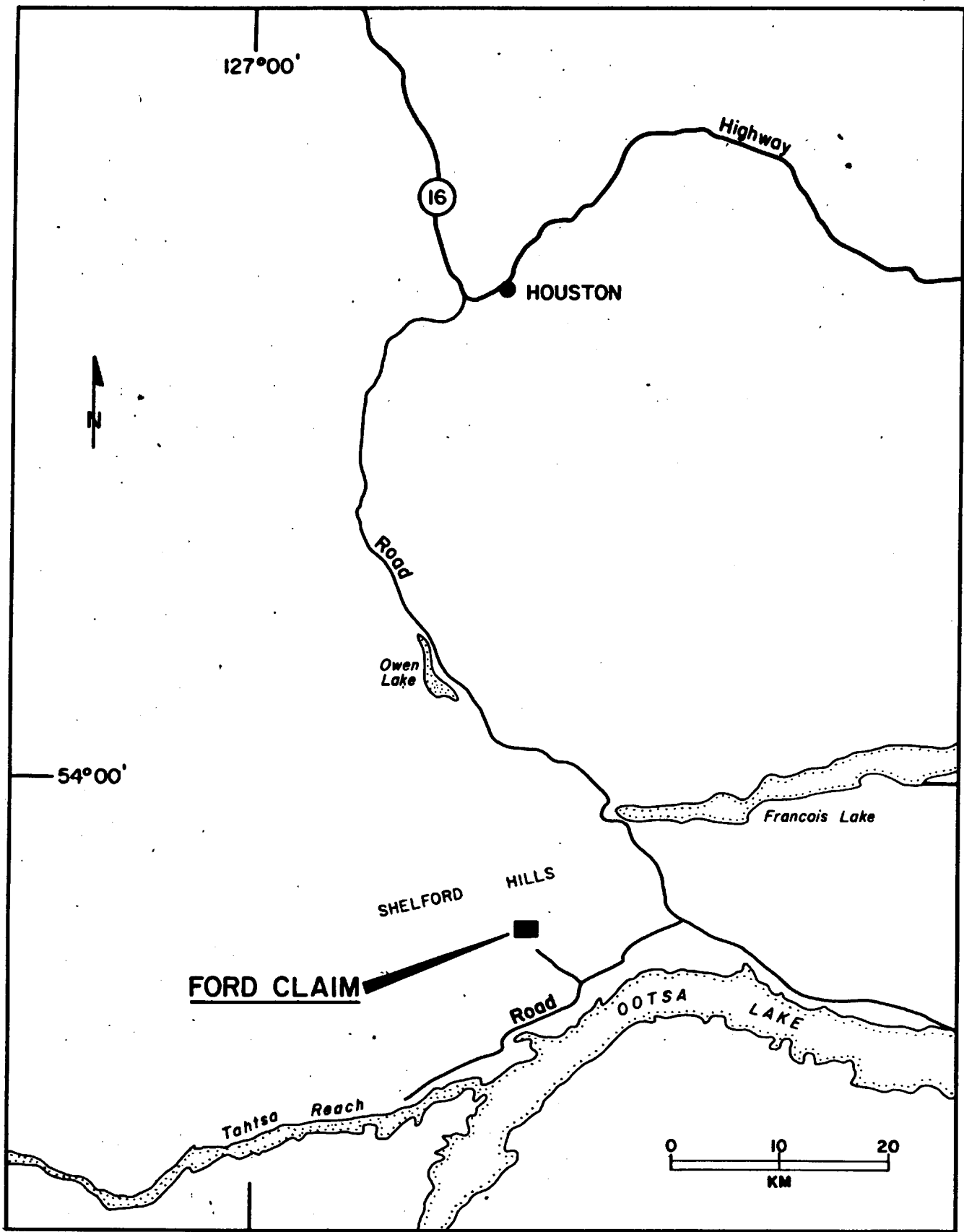
The writer has not visited the FORD claim but has extensive background knowledge of this area gained by way of geological studies throughout west-central British Columbia and numerous property examinations in the general area of the property (see References section).

## LOCATION AND ACCESS

The FORD property is situated 60 km south of the municipality of Houston in west-central British Columbia (Figure 1).

The mineral claim is located in the south part of the Shelford Hills 10 km north of Ootsa Lake (Figure 2) and the geographic centre of the property is at latitude 53°53' North and longitude 126°38' West in NTS map-area 93E/15E.

Access to the property is by helicopter or road from Houston. Recent logging activity west of the main road linking



**FIGURE 2 - LOCATION - FORD MINERAL CLAIM**

Ootsa Lake and Houston (Figure 2) has provided a number of new roads including one that extends to within a few kilometres of the FORD property.

#### MINERAL PROPERTY

The FORD property consists of one Modified Grid mineral claim of 6 mineral claim units in the Omineca Mining Division. No claim posts or lines have been examined by the writer.

While the claim is believed to have been located in accordance with procedures as specified by the then Mineral Act Regulations for the Province of British Columbia, a one unit mineral claim, located by another party in contravention, may cover a small area of open ground in the southwestern part of the FORD claim.

Details of the mineral claim are as follows (Figure 3):

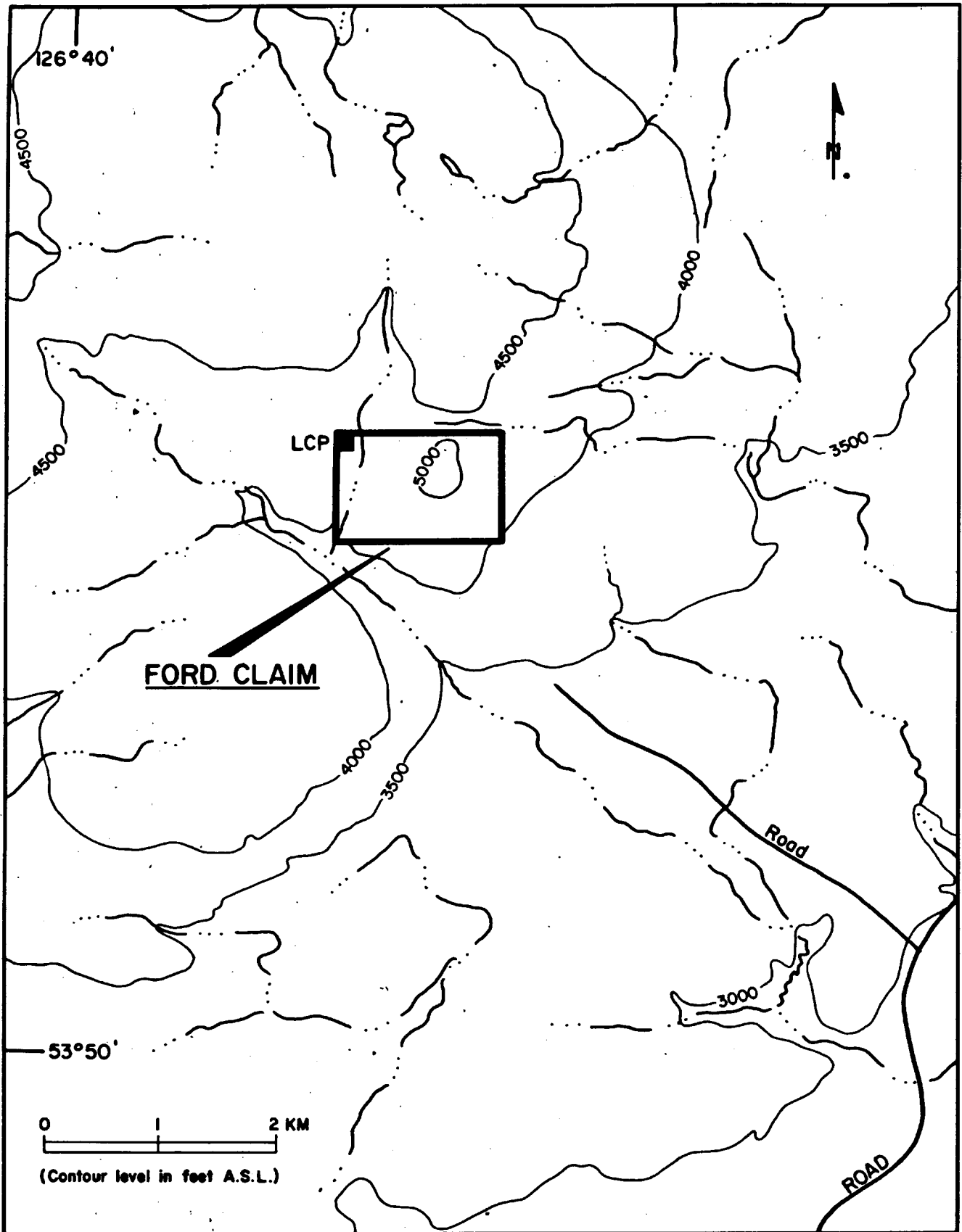
<u>Claim Name</u>	<u>Record Number</u>	<u>Units</u>	<u>Expiry Date</u>
FORD	4912	6	November 17,1989

The claim is registered in the name of Pacific Houston Resources, Inc. pursuant to a Bill of Sale dated July 5,1989.

#### PHYSICAL FEATURES

The property is situated within one of the higher areas of the Nechako Plateau, the Shelford Hills, a semi-circular upland area featuring rolling topography and extensive spruce, lodgepole pine and balsam tree cover.

Elevations within the FORD mineral claim range from 1200 to 1375 metres above sea level. The western claim area features a



**FIGURE 3 - FORD MINERAL CLAIM**



deeply incised creek canyon in which bedrock is exposed (Figure 3). Elsewhere, bedrock is obscured by up to 6 metres of overburden.

#### HISTORY

The earliest documented exploration work in the Shelford Hills area took place in 1969 when claims were located over an area including the present FORD claim following a regional stream sediment sampling program by Kennco Explorations (Western) Limited (Ney, 1970).

This was during a period of intensive exploration for porphyry copper-molybdenum deposits throughout west-central British Columbia and additional work was carried out in the area until the mid-1970's.

Since 1981, several companies have held ground in the southern Shelford Hills area. Work in recent years on the present FORD claim has included limited trenching and a soil geochemical survey.

#### REGIONAL GEOLOGICAL SETTING AND MINERAL DEPOSITS

The Ootsa - Tahtsa Lakes area of west-central British Columbia is within the Intermonatne tectonic belt. Oldest rocks exposed are early to middle Jurassic Hazelton Group volcanic and sedimentary rocks. These are overlain in part by early Cretaceous Skeena Group successor basin sedimentary rocks, by mid to late Cretaceous Kasalka Group volcanic rocks and by areally extensive Tertiary volcanics north and south of Francois Lake.

The Mesozoic layered sequences are intruded by numerous plutons

of late Cretaceous and Tertiary age (Carter,1981). At least 10 of these intrusions have associated porphyry copper and molybdenum mineralization in the Tahtsa - Troitsa Lakes area west of the Shelford Hills (Carter,1981; MacIntyre,1985). These include the Huckleberry and Ox Lake deposits associated with Bulkley porphyritic intrusions of late Cretaceous age and Berg where supergene enriched copper mineralization is related to a Tertiary (Eocene) quartz monzonite porphyry plug.

Other styles of mineralization in the area south of Houston include the Equity Silver mine where copper-silver-antimony sulfides and sulfosalts and gold occur as tabular zones grossly conformable with host Mesozoic felsic to intermediate volcanic fragmentals and flows (Cyr et al,1984). Epigenetic vein deposits containing precious and base metals mineralization include Silver Queen (Pacific Houston Resources,Inc.) at Owen Lake and a number of lead-zinc-silver deposits in the Tahtsa Lake area including Emerald Glacier,Swannell,Lead Empire and Coles Creek (MacIntyre, 1985).

#### PROPERTY GEOLOGY, GEOCHEMISTRY AND GEOPHYSICS

The Shelford Hills area is a fault-bounded uplifted area underlain by felsic to intermediate volcanic flows and fragmentals locally intruded by coeval rhyolite and granitic porphyry plugs (Woodsworth,1980). Similar sequences in the Tahtsa - Troitsa Lakes area to the west have been defined as the Kasalka Group of late Cretaceous age by MacIntyre(1985).

Bedrock in the Shelford Hills has been variously described (Ney,1970;Findlay et al,1981;Goad,1984;Myers,1988) as consisting of rhyolite flows and fragmentals with lesser porphyritic andesite and dacite tuffs. Intrusive rocks include porphyritic granodiorite, quartz monzonite and quartz-feldspar porphyry.

Flow banding in rhyolitic or felsic flows is reportedly well developed and is marked by jasperoid bands in the creek in the west part of the FORD claim (Myers,1988).

The felsic rocks are locally well fractured on the FORD claim and contain up to 5% disseminated pyrite (Ney,1970;Myers,1988). Higher pyrite concentrations are usually coincident with more intense sericite and clay mineral alteration.

As noted previously, much of the FORD claim is overburden covered. Initial interest in the area was stimulated by anomalous concentrations of silver and zinc in stream sediment samples in the major drainage flowing southeast from the present claim (Figure 3). A subsequent soil geochemical survey (Ney,1970) showed a northeast trending zone with anomalous zinc (+250ppm) and coincident silver values above 1 ppm within the area of the present FORD claim. Weakly anomalous copper values were noted immediately north and molybdenum values above 3ppm are partly coincident with the zinc-silver anomaly (Ney,1970).

These results were subsequently corroborated by soil geochemical surveys conducted over a large area of the Shelford Hills (including the area of the FORD claim) by Canamax Resources Inc.(Goad,1984) and Noranda Exploration Company Limited (Myers,1988). Both surveys

indicated anomalous lead values crudely coincident with zinc-silver anomalies as well as some anomalous gold values, the highest being 340 ppb, obtained by the Canamax survey.

Recent soil sampling on behalf of Pacific Houston Resources, Inc. has further defined the areas of anomalous zinc and silver on the FORD claim. These data (Figure 4) indicate an east-west 500 by 200 metre area with coincident, moderately to strongly anomalous zinc (+350 ppm) and silver (+2.0 ppm) values in the central part of the claim. Zinc values within this zone range up to 1260 ppm, silver to 4.4 ppm. Higher zinc values of up to 29000 ppm occur on line 26S immediately west of the baseline (Figure 4). Here and elsewhere on the claim, anomalous zinc values are more widely dispersed than silver.

Previous geophysical surveys over the area of the present FORD claim have included a magnetic survey which yielded little useful information (Ney, 1970) and an Induced Polarization survey (Bailey and Klein, 1974) which indicated relatively thin overburden cover which supports the validity and usefulness of the soil geochemical results.

The Induced Polarization survey also showed a zone of higher chargeabilities extending north to northeasterly through the western half of the claim and which appears to be crudely coincident with the western half of the principal zinc-silver soil geochemical anomaly.

As noted, bedrock is poorly exposed except in the creek canyon near the western claim boundary where altered felsic volcanics

contain up to 5% disseminated pyrite. Sampling of this material showed anomalous concentrations of zinc and molybdenum (Ney,1970) but little gold (Myers,1988). Just north of the FORD claim, small amounts of galena were noted in fractures in felsic volcanics and float in the major drainage south of the FORD claim was seen to contain 4 cm wide tetrahedrite-chalcopyrite-sphalerite veinlets (Goad,1984).

#### CONCLUSIONS AND RECOMMENDATIONS

Soil geochemical surveys within the boundaries of the present FORD claim have disclosed the presence of moderately to strongly anomalous concentrations of zinc and silver. The principal soil geochemical anomaly is crudely coincident with a zone of higher chargeabilities as defined by an Induced Polarization survey. Restricted bedrock exposures on the claim contain disseminated pyrite and float containing veinlets with tetrahedrite-chalcopyrite-sphalerite has been noted immediately south of the claim.

Additional exploration work is definitely warranted and the writer recommends a program of detailed geological mapping of creek exposures to yield structural information to be followed by backhoe trenching within the areas of anomalous zinc-silver geochemical values prior to testing by diamond drilling. Some road upgrading and construction will be required to provide access to the property.

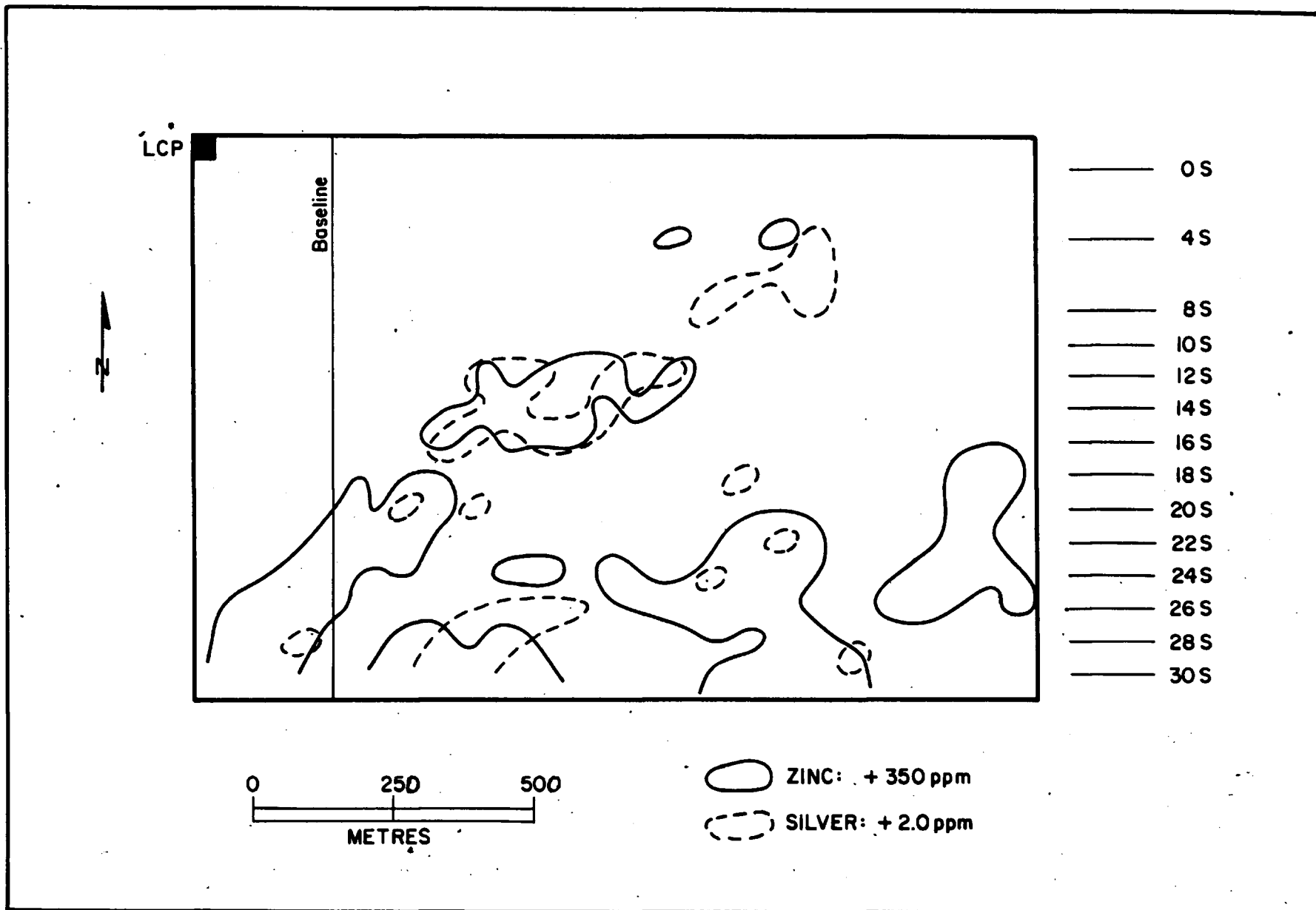
COST ESTIMATE

Geological Studies	\$5,000.00
Road Construction, Trenching	\$25,000.00
Diamond Drilling - 1000 metres @ \$90/metre	\$90,000.00
Analytical Costs	\$5,000.00
Support Costs - camp, transportation	\$7,500.00
Supervision, reporting	\$15,000.00
Contingencies	<u>\$22,500.00</u>
Total	\$170,000.00

N.C. Carter, Ph.D. P.Eng.

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**FIGURE 4 - SOIL GEOCHEMISTRY - FORD MINERAL CLAIM**



CERTIFICATE

I, NICHOLAS C. CARTER of Victoria, British Columbia, do hereby certify that:

1. I am a Consulting Geologist registered with the Association of Professional Engineers of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc.(1960), Michigan Technological University with M.S.(1962) and the University of British Columbia with Ph.D.(1974).
3. I have practised my profession in eastern and western Canada and in parts of the United States for more than 25 years.
4. The foregoing report is based on a review of previous exploration work on the FORD property and on published reports and maps. The writer has not visited the FORD property but has an extensive background in the geology and mineral deposits of west-central British Columbia.
5. I have no interest, direct or indirect, in the FORD mineral claim or in the securities of Pacific Houston Resources, Inc.
6. Permission is hereby granted to Pacific Houston Resources, Inc. to use this report in support of a Prospectus or Statement of Material Facts or Filing Statement to be submitted to the British Columbia Securities Commission and the Vancouver Stock Exchange.

N.C. Carter, Ph.D. P.Eng.

Victoria, B.C.  
October 6, 1989

N.C. CARTER, Ph.D., P.Eng.  
CONSULTING GEOLOGIST