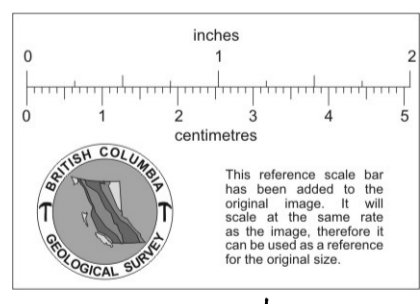
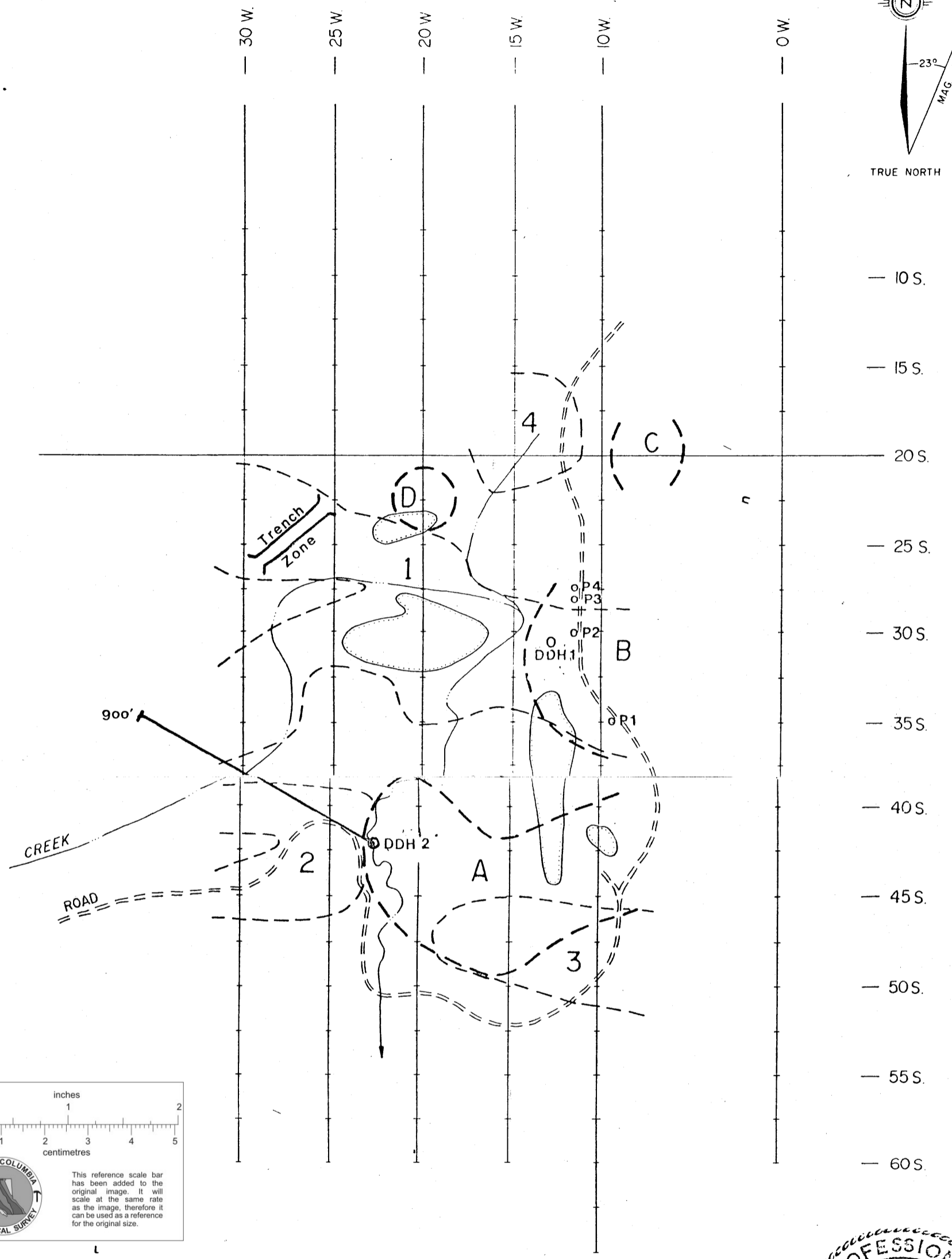
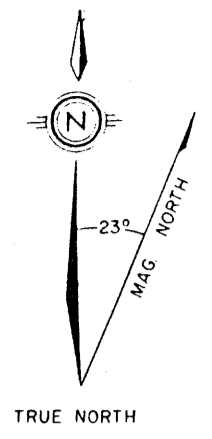


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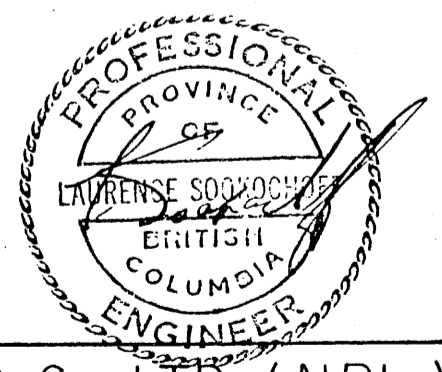
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LAKEWOOD MINING CO. LTD. (N.P.L.)
SANTA PROPERTY
WESTSIDE ZONE



LEGEND

- (---) A,B,C,D) INDUCED POLARIZATION ANOMALIES
- (---) 1,2,3,4) GEOCHEMICAL ANOMALIES (LEAD, ZINC, COPPER, SILVER)



LAKWOOD MINING Co. LTD. (N.P.L.)

SANTA PROPERTY
WESTSIDE ZONE
VANCOUVER M.D., B.C.

GEOCHEMICAL & GEOPHYSICAL ANOMALIES MAP

METRES
50 0 50 100 150

PROPERTY FILE

Geological Report

on the

SANTA PROPERTY

for

LAKWOOD MINING CO. LTD.

Vancouver B.C.

92J 3E

92JW033

March 7, 1980
Vancouver, B.C.

L. Sookochoff, P.Eng.
Consulting Geologist

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ILLUSTRATIONS

LOCATION MAP
STREAM SEDIMENTS ANOMALIES
GEOCHEMICAL AND GEOPHYSICAL ANOMALIES MAP

Geological Report

on the

SANTA PROPERTY

INTRODUCTION

At the request of C. Boitard of Lakewood Mining Co. Ltd., the writer prepared this report on the results of work completed to date on the Santa Property with a recommendation for a continuing exploration program.

Additional pertinent information was obtained from government and other public publications on the area.

PROPERTY

The Santa property is comprised of four contiguous claim blocks totaling 35 units. Data on the claims is as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Santa	20	64	December 22, 1984
Santa North	6	76	March 22, 1988
Santa East	3	77	March 22, 1988
Santa Southeast	2	75	March 22, 1988
Santa South	4	78	March 22, 1988

LOCATION, ACCESS AND TOPOGRAPHY

The property is situated 100 kilometers north of Vancouver between Callaghan Creek and the Soo River. The Northair property which is in production is within three kilometers to the southeast.

Access is via a newly constructed 6.5 kilometer road intersecting a secondary road thirteen kilometers from Highway 99 and three kilometers north of Daisy Lake.

The topography is of gentle slopes and steep bluffs with elevations up to 1,700 meters a.m.s.l. Local relief is 700 meters.

WATER AND POWER

Water for all phases of the exploration and development program would be available from lakes and streams within the confines of the property.

Diesel-electric power would be required for the initial phases of the exploration program.

HISTORY OF THE AREA

From the original discovery of the Britannia ore deposits in 1888 (48 kilometers north of Vancouver) and subsequent exploration and production from 1902, the general area has been intensively explored for similar economic ore zones which may be contained within pendant rocks of the Coast Range Intrusives and structurally controlled by large scale fault or shear zones. Many small high grade, or larger low grade prospects have since been discovered, however only one mine, which has recently come into production, has resulted.

The Northair Mines property has reported production of 300 tons per day. The ore zone is three kilometers southeast of the Santa southern boundary

PROPERTY HISTORY

The Santa claims cover an area formerly known as the FASS claim group on which, in 1973, the Caltor Syndicate had carried out a preliminary stream and soil sampling program. The sampling of the drainage system indicated sporadic anomalous zones with more consistent correlative anomalies on the present Santa North claim. The localized area covered by the soil geochemical survey did not reveal any significant anomalies although the southern and eastern portion of the grid indicated an increasing mineral content. A general northeasterly and northwesterly structural trend is reflected by possible mineralized shear zones.

Upon the staking of the Santa claims in 1976, the stream and soil samples obtained from previous exploration on the area were analyzed for the molybdenum content.

In the 1977 exploration season, work consisted of six and a half km of road construction for access to the claim group and diamond drilling in the Wood Lake area. The drilling was comprised of three drill holes for 193 meters (634 feet).

In 1978 a localized I.P. and geochemical survey was completed over the Westside zone.

In 1979 four percussion holes were drilled on the eastern edge of the Westside zone.

The percussion drilling was followed by a diamond drill program also carried out in the 1979 exploration season. Two holes were drilled (D.D.H. 1 and D.D.H. 2) for a total of 427 meters (1,400 feet)

REGIONAL GEOLOGY

The property lies in an area underlain mainly by plutonic rocks of the Coast Crystalline Complex. Gneiss, migmatite and regionally metamorphosed sedimentary and volcanic rocks form discontinuous northwest trending belts. Pendants of metavolcanic and metasedimentary strata, generally elongated northerly to northwesterly and of variable size are enveloped by the plutonic and migmatitic rocks.

Schistosity in the pendants is usually parallel or subparallel with contacts which may be expressed as shear zones or faults. Narrow northwest trending zones of deformation with intervening areas of well preserved original texture appears to be prevalent.

The three mineralized zones on Northair's property occur within a roof pendant of Lower Cretaceous metavolcanic rocks. The orebodies lie in a steeply-dipping vein-type structure varying from one to over five meters wide and with a known lateral extent of 1,300 meters. Vertical extension is in the order of 160 meters.

PROPERTY GEOLOGY

The Santa claims predominantly cover a northwesterly elongated pendant of metavolcanics (greenstone) with minor metasediments. The greenstone is in contact with a granodioritic phase of the Coast Intrusives a mile to the northeast. A northwesterly trending contact with recent volcanics passes through the southwest corner of the property.

In a 1973 report on the area now covered by the Santa claims the following is noted: a dark dioritic rock containing erratic pyrite occurs over much of the west soil grid area, with some outcrops of intermediate volcanics on the southern part of the grid; to the east of the grid north trending cliffs are composed of fine-grained cross bedded sedimentary rocks; in the southern part, the rocks are largely intermediate volcanics containing abundant pyrite and epidote.

In the Wood Lake area are outcrops metavolcanics along with dioritic intrusives altered to variable degrees.

The general area appears to have been subjected to intense structural deformation as evident from the many occurrences of fault zones as interpreted on the ground and from air photos. This, in addition to the variable intrusives and sediments resulted in differential structural and hydrothermal metamorphism.

Diorites range locally from unaltered hypidiomorphic granular as in the southwood area to gneissic or schistose as in the eastwood area. Superimposed alteration is also

variable and ranges from propylitic to a light degree of phyllic (westwood).

The metavolcanic and metasediment pendant in the Wood Lake area is intruded by diorites resulting in alternating degrees of contact metamorphism. Hydrothermal metamorphism is also present as indicated by occasional occurrences of chalcopyrite.

A feldspar porphyry outcrops along the west side of Wood Lake. The porphyry contains subhedral to euhedral feldspar crystals within a dark green chloritic matrix. Pyrite disseminations are common throughout the matrix.

The relationship of the porphyry to the intrusives or sediments is undetermined at this time.

Outcrops of crystalline limestone occur 500 meters north of the north end of Wood Lake. Pyrite and grossularite garnets in addition to tremolite are associated with the limestone.

One hundred meters southwest of the limestone are outcrops of pyritized meta-andesite in contact with an altered diorite also pyritized.

Pyrite is ubiquitous in variable degrees with no preference for rock type although pyrite does occur to a greater degree within chlorite-sericite schists.

Other significant alteration or indicator minerals are epidote, quartz veinlets and silicification, chlorite bands and veinlets, bleached zones and pink feldspar. However, from the information available to date, a specific alteration pattern was not established.

RESULTS OF PREVIOUS EXPLORATION BY LAKEWOOD MINING

In 1976 analysis of the stream and sediment samples indicated an anomalous zone along the centre of the Santa North claim as well as an anomalous zone below the southern lake on the Santa claim.

The 1977 drilling program in the Wood Lake area resulted in the intersection of predominantly diorite phases with localized values of up to .46% Cu, 0.10% Pb, 0.48 oz. Ag/ton and 0.016 oz. Au/ton over 0.61 meters in drill hole No. 2 in the Eastwood area.

The 1978 I.P. and geochemical survey was reported on by D. Mark. Four localized I.P. and geochemical anomalies were suggested to reflect a pyritic halo on a central mineralized zone as indicated by the central geochemical anomalies.

The 1979 percussion drill program on the eastern edge of the Westside zone intersected only minor mineral values.

The 1979 diamond drill program on the Westside zone did not intersect any significant mineralization. However in D.D.H. 1, where the extent of the hole was in meta-diorite, assays on six selected samples indicated an increased gold content at the bottom 30 meters. The gold content in ppm. ranged up to 170 ppb.

D.D.H. 2 intersected meta volcanics with banded tuffaceous sandstone and siltstones with localized agglomeritic fragments in the bottom section of the hole.

MINERALIZATION

Surface exposures on the property indicate a variable pyritic content in most rocks with localized moderate to heavy content.

Chalcopyrite occurs as disseminations and blebs in association with pyrite in metadiorites and metasediments as in D.D.H. 2 - Wood Lake area.

Galena occurs within a quartz vein at Westwood and also occurs with pyrite and chalcopyrite in D.D.H. 3 at the Westwood - Wood Lake area.

Anomalous values of nickel and tungsten occur throughout the property.

Gold values ranging up to .018 oz./ton and less but significant occur in drill holes in the Wood Lake area and the West side zone. A sample from a trended shear zone on the West side returned 30 ppb. Au and 25 ppm. Mo and up to 1,500 ppm. Cu.

On the West side zone a localized geochemical survey has also delineated anomalous generally correlative lead, zinc, silver and copper zones.

CONCLUSIONS

Reconnaissance exploration to date on the Santa property has indicated that there are many areas that warrant follow-up exploration. However the results from localized exploration on the West side zone indicate significant induced potential and geochemical anomalies.

The results of the drilling on the West side returned encouraging mineral values which in zoning could indicate proximal increased values. Additional surface and drill testing of this zone is warranted to determine the significance of the results .

RECOMMENDATIONS

The recommended exploration program should be centered around the West side zone where a follow-up limited surface exploration program would be followed by additional diamond drill testing.

The surface program should be comprised of electromagnetic and induced potential surveys, to delineate the known anomalous zone, with subsequent diamond drill testing.

The estimated cost of the recommended program is as follows:

E.M. survey	\$ 1,500
I.P. survey	2,500
Diamond drilling 400 meters @\$75	30,000
Field expenses	1,000
Engineering and supervision	<u>5,000</u>
	\$40,000

The program is estimated to take two months to complete.

Respectfully submitted



Laurence Sookchoff, P.Eng.
Consulting Geologist

March 7, 1980
Vancouver, B.C.

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CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver,
in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with Pan-American
Consultants Ltd. of 2602 - 1055 West Georgia Street,
Vancouver, B.C.

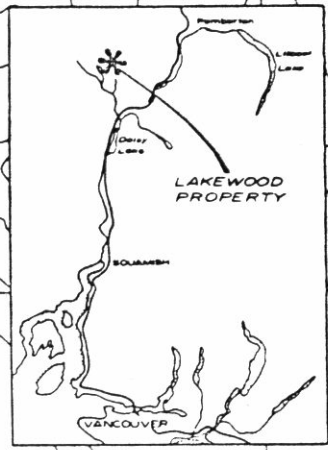
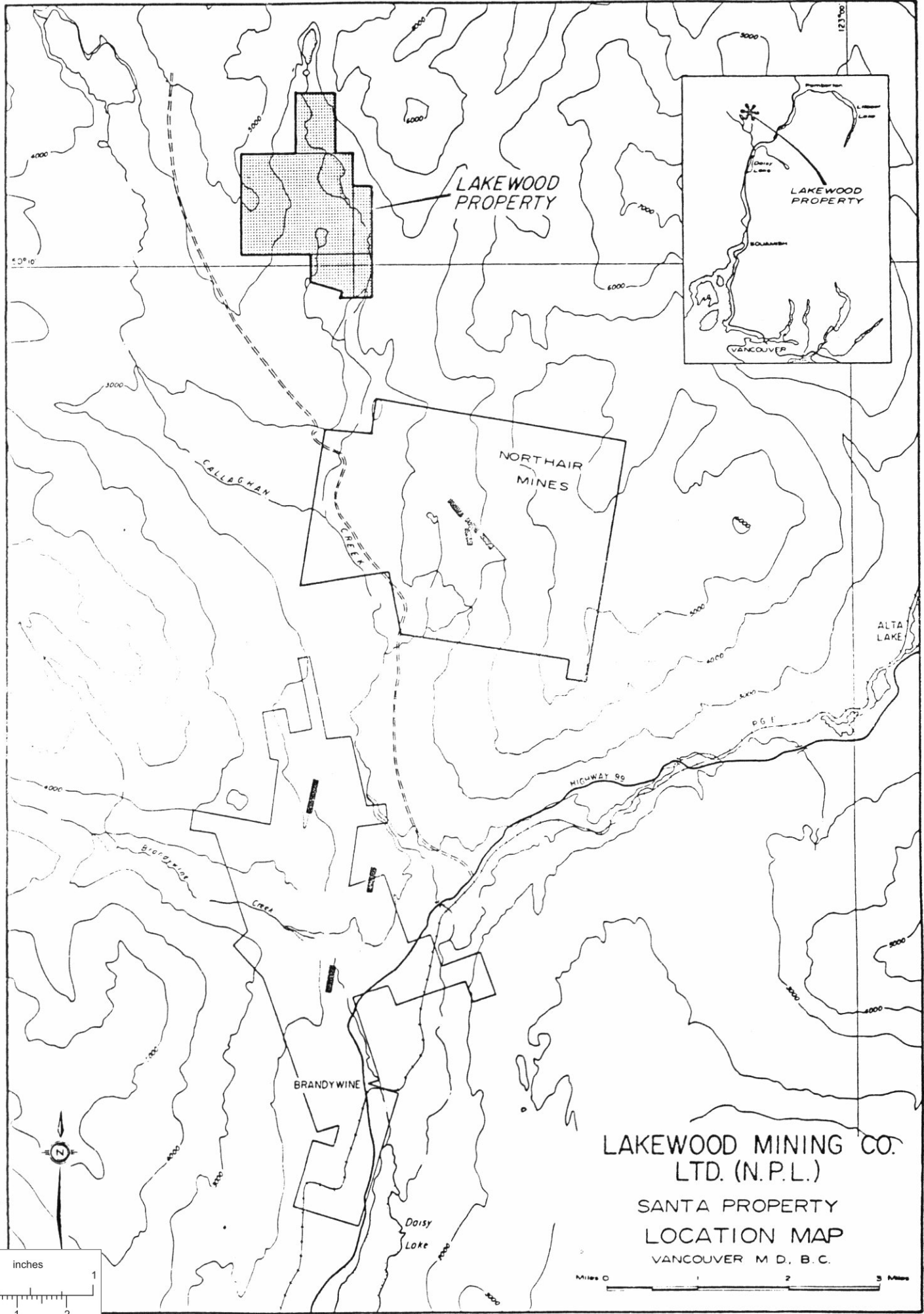
I further certify that:

1. I am a graduate of the University of British
Columbia (1966) and hold a B.Sc. degree in
Geology.
2. I have been practising my profession for the
past twelve years.
3. I am registered with the Association of
Professional Engineers of British Columbia.
4. The information for the accompanying report
is based on work performed on the Santa Property
since 1977 and from published materials as cited
under references.
5. Neither I nor Pan-American has direct or indirect
interest in the property described herein, or in
the securities of Lakewood Mining Co. Ltd. or
any of its affiliates.

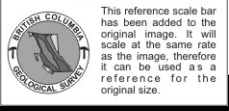
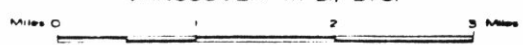
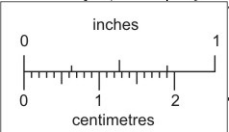


Laurence Sookochoff, P.Eng.
Consulting Geologist

March 7, 1980
Vancouver, B.C.



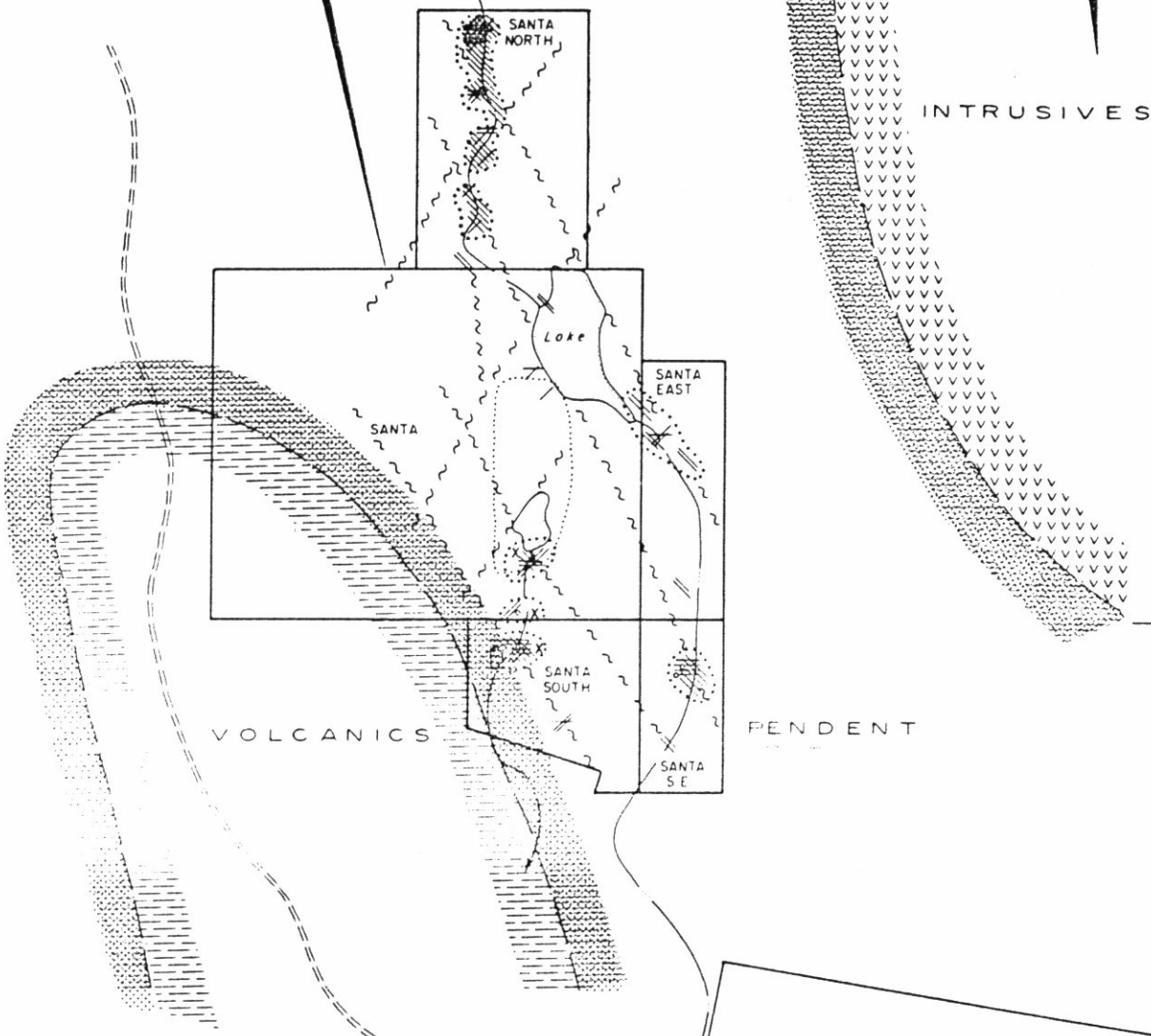
LAKWOOD MINING CO.
 LTD. (N.P.L.)
 SANTA PROPERTY
 LOCATION MAP
 VANCOUVER M D, B. C.



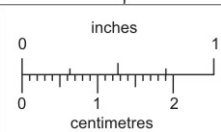
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SANTA PROPERTY
BOUNDARY



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LEGEND

- Stream
- Molybdenum anomalous zone
- Copper anomalous zone
- Zinc anomalous zone
- Lead anomalous zone
- Silver anomalous zone
- Area of soil sampling (Map 3)
- Indicated structural trend

GEOLOGY

- Contact
- Upper Tertiary to Recent
Dacite, andesite, and basalt
breccias, tuffs & flows
- Upper Triassic to Lower Cretaceous
Metavolcanic rocks
- Granodiorite
- Stream Sediment Anomalous areas
of Silver, Copper, Lead & Zinc
(Assays not sampled for Gold)

**NORTH AIR MINES
MILL COMPLETED
MINING IN OPERATION**



**LAKWOOD MINING CO.
LTD. (N.P.L.)
SANTA PROPERTY
STREAM SEDIMENT
ANOMALIES**

