

# 5325

PRELIMINARY GEOLOGICAL REPORT

"ZINC" MINERAL CLAIMS  
(Peerless Prospect)

50°56'N, 122°47'W 92 J 15 W

Lillooet M.D., B.C.

92J/15W

for

THUNDER CREEK MINES LTD. (NPL)

Vancouver, B.C.

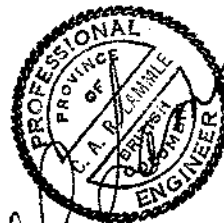
by

Charles A. R. Lammie, P. Eng.

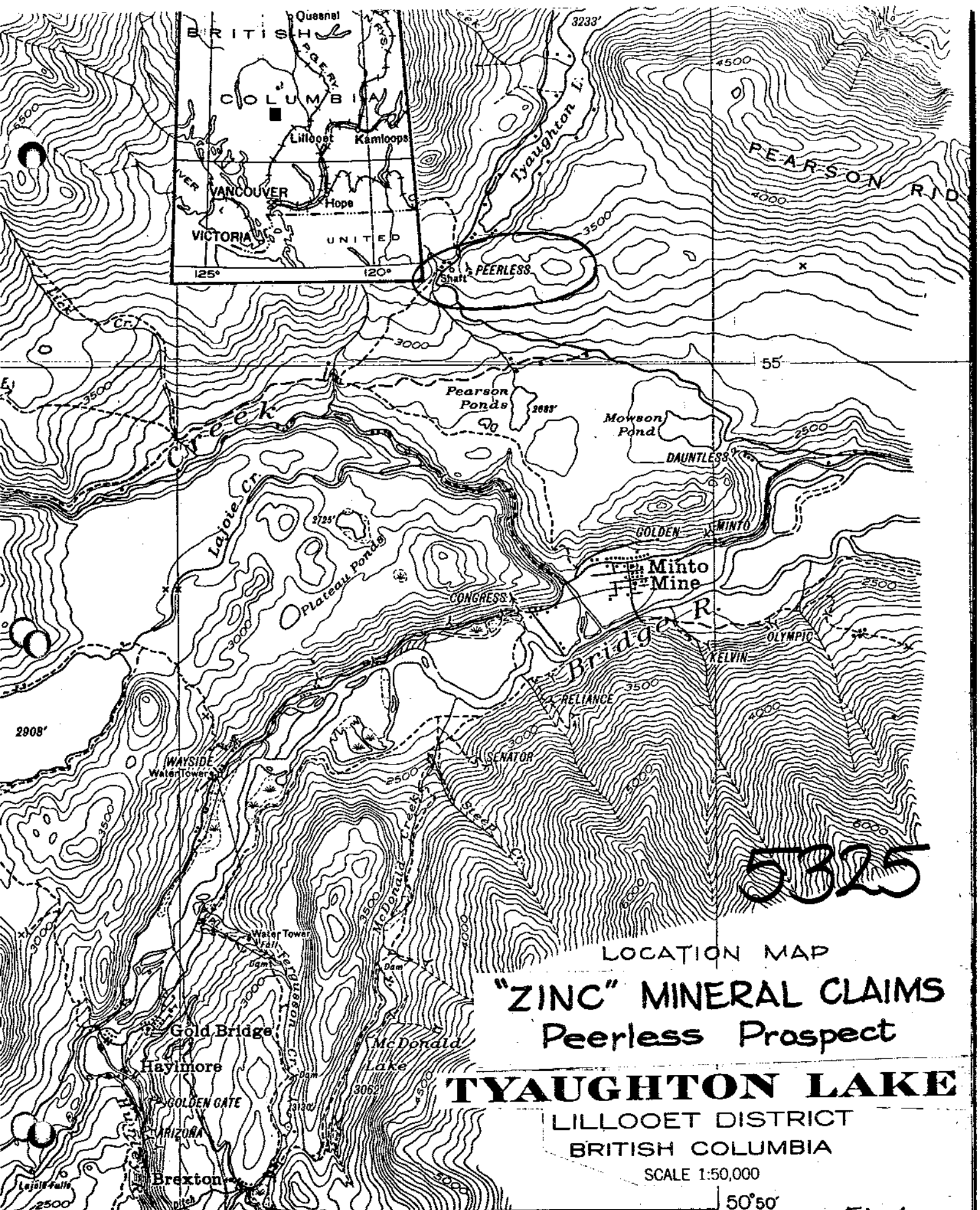
HIGHLAND GEOLOGICAL SERVICES LTD.

2 December 1974

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5325 MAP.....



DEC 2 1974



5325

LOCATION MAP  
 "ZINC" MINERAL CLAIMS  
 Peerless Prospect  
**TYAUGHTON LAKE**  
 LILLOOET DISTRICT  
 BRITISH COLUMBIA  
 SCALE 1:50,000

50'      declination, 25°45' East      122°45'      50°50'

Fig. 1

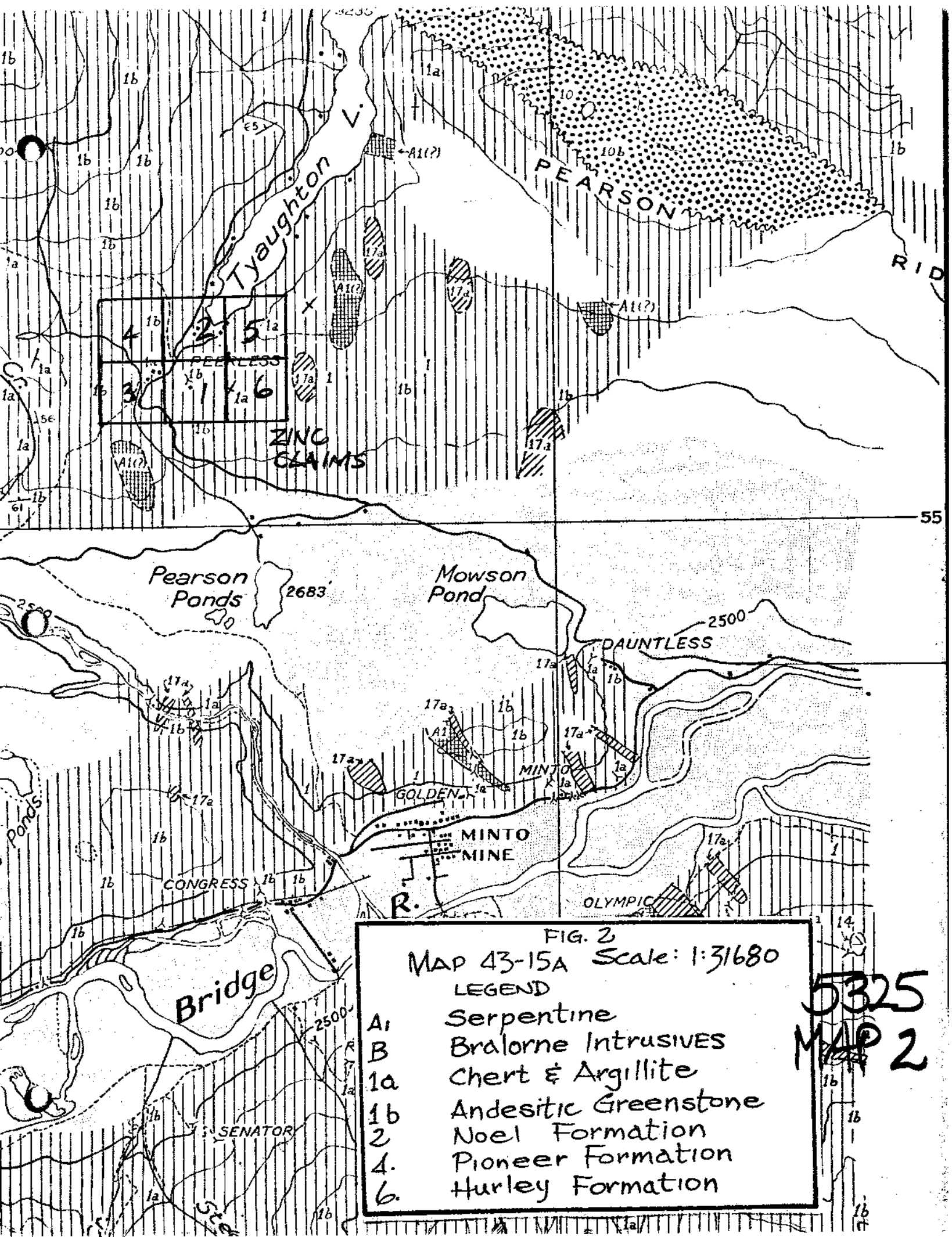


FIG. 2  
 MAP 43-15A Scale: 1:31680  
 LEGEND  
 A1 Serpentine  
 B Bralorne Intrusives  
 1a Chert & Argillite  
 1b Andesitic Greenstone  
 2 Noel Formation  
 4 Pioneer Formation  
 6 Hurley Formation

5325  
 MAP 2

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Charles A. R. Lamble, P. Eng.

PRELIMINARY GEOLOGICAL REPORT  
"Zinc" Mineral Claims  
(Peerless Prospect)  
Thunder Creek Mines Ltd. (NPL)

INTRODUCTION During September 1974 Highland Geological Services Ltd. was commissioned by Thunder Creek Mines Ltd. (NPL) to examine and to report upon its Peerless Prospect, a pyrite-sphalerite fissure vein with interesting gold values, located at the south end of Tyaughton Lake, 40 miles WNW from Lillooet, B.C. Work accomplished during the examination included surface and underground geological mapping and reviewing the available literature. The purpose of this report is to describe the work and its results. An outline of an initial program to provide more objective data on the property is given.

Figures 1 and 2 illustrate the property's location and the general geology, and Map 1, in the pocket, shows the few outcrops at the prospect.

SUMMARY The "Zinc" Mineral Claim property of Thunder Creek Mines Ltd (NPL) consists of 6 recently staked claims. These are located at the south end of Tyaughton Lake which is about 9 airmiles north of Bralorne, B.C., or alternatively 115 miles north of Vancouver.

The claims cover the old Peerless prospect that was discovered and explored in the early 1930's. The main development is a 265' adit which follows a fissure-vein through Fergusson group andesite, argillite and chert. The fissure-vein contains lenses up to 2' wide of semi-massive, bunches and streaks of pyrite-sphalerite carrying good gold values. Gangue minerals

are quartz, calcite and ankerite. Work was done up to 600' to the west to trace the extension, or faulted extension of the vein. The northeast projection is open for discovery, as is the down-dip projection.

As it stands by itself, the Peerless fissure-vein is small. However, because the property is underlain by favourable host rocks and by mineralizing feldspar porphyries, because it has not been surveyed by modern techniques, and because of the current high price for gold, it is recommended that the prospect be viewed as a starting point, and that a preliminary STAGE 1 exploration program, estimated to cost \$15,000.00 be undertaken. Further work would be contingent upon obtaining good results, and although it is premature to attempt to outline a follow-up program now, it is suggested that \$30,000.00 be allowed for it.

CLAIMS The claims consist of the six "Zinc" 1 - 6 Mineral Claims. Details of these claims follow:

CLAIM	TAG	STAKED
Zinc 1	139987M	27 November 1973
Zinc 2	139988M	" "
Zinc 3	139989M	" "
Zinc 4	139990M	" "
Zinc 5	139991M	" "
Zinc 6	139992M	" "

The location line of these claims runs in an east-west direction, as shown on Fig. 2.

LOCATION AND ACCESS (Fig. 1) The property is located at the south end of Tyaughton Lake 9 miles north of Bralorne, B.C. This is 115 miles north of Vancouver. Elevations range between 3300' and 3500'. It may be reached by driving 60 miles west from Lillooet on Bralorne Highway, thence  $4\frac{1}{2}$  miles northerly via Tyaughton Creek Road. At this point a logging road skirts the south side of the lake and crosses the property.

A three-phase hydroelectric transmission line follows Bralorne Highway. Water and timber for mining purposes is locally available. B.C. Railroad station of Shalath is 40 miles distant by road. Supplies may be obtained at Lillooet.

HISTORY

Prior to 1937, the property was owned by Peerless Gold Mines Limited, now defunct. The showings were developed by trenches, 2 adits, and a shaft steeply inclined to the northeast. The property has lain idle up until recent years when, with the rising price of gold, it was restaked. The inclined shaft appears to have been backfilled, the two adits are accessible, but the collar for the longest adit --- the lowest one --- has been moved inwards about 30° by recent bulldozing. Also, some recent bulldozer trenching has been carried out in an attempt to trace the southwest extension of the fissure vein.

GENERAL GEOLOGY (Fig. 2)

Bedrock underlying "Zinc" Mineral Claims is andesitic and basaltic lavas, and crumpled chert and argillite of the Triassic or older (?) Fergusson Group. Locally, these rocks have been intruded by serpentized ultrabasic rocks, and by Cretaceous or Tertiary feldspar porphyries. Fergusson Group rocks are cut by strong faults, and are generally deformed and contorted. Sulphides with both base and precious metal value, occur along quartz-calcite filled fissures.

At the Peerless workings, andesitic lavas, some argillite, chert and feldspar porphyry is exposed. The main adit drifts irregularly along a northeast trending mineralized fissure. The fissure has an average dip of 50° NW. Attitudes of the rocks, both on surface and underground, are not clear.

The upper adit and several nearby trenches expose rusty and irregularly pyritized andesite. The main adit goes through andesite, siliceous argillite and some chert. It exposes the best mineralization known on the property. This is composed of thin fissure-fillings of semi-massive streaks and bunches of pyrite and sphalerite with quartz, calcite and ankerite. The lenses vary in width from 4 inches to two feet.

The fissure-vein, 7" wide at a point 24' in from the present portal is reported to grade Au - 0.28 oz./t., Ag - 2.7oz./t., Zn - 10.4%. At a point about 40' back from the face, a 1.8' sample across the lense reported assayed

Au - 0.30 oz./t., Ag - 2.7 oz./t., Zn - 8.6%. No work up- or down-dip has been done on the mineralized lenses. The northeast strike projection is open for possible extension.

Bulldozing along the southwest projection of the fissure vein failed to find the vein. It may be offset by a fault, and it is possible that the continuation of the vein might be found along a northeast trending draw passing through the old shaft site. There is no information available on what was encountered down the shaft, or what intrigue caused the shaft to be sunk in the first place.

#### EXPLORATION POTENTIAL

The Peerless Fissure-Vein, as it stands alone, is small. It should be viewed as a starting point -- a starting point from which to commence exploration designed to detect additional mineralization nearby. The area of the "Zinc" claims is underlain by favourable host rocks and by important probable sources of mineralization, the Cretaceous or Tertiary feldspar porphyries. There is a good chance for discovering economic mineralization on the ground by modern exploration techniques.

#### CONCLUSIONS AND RECOMMENDATIONS

We recommend that a modern exploration program be commenced on the "Zinc" claims with the objectives of either tracing the known fissure-vein, or discovering others like it. This program should consist of vertical-pair airphoto interpretation, line-cutting, detailed geological mapping, soil-geochemistry and ground magnetics and electromagnetics.

Estimated cost of the program is tabulated below:

#### STAGE 1

1.	Geologist - air photo study, organizing, mapping, supervising	\$4,000.00
2.	Linecutting	1,000.00
3.	Soil Sampling	1,500.00
4.	Soil Analysis	600.00
5.	Ground Magnetics	1,000.00
6.	Ground electro-magnetics	1,000.00
7.	Bulldozer Trenching	1,500.00
8.	Transportation	600.00
9.	Camp, food, misc.	800.00
10.	Contingencies	3,000.00

Estimated cost of Recommended Work \$15,000.00



With encouraging results, additional work would be required, and funds would have to be allowed for this. However, it is difficult to objectively judge the amount at this time. It would likely consist of bulldozer trenching and drill-testing of intriguing targets, along with the necessary geological supervision and control. An exact outline of this work at this time would be premature, but one might contemplate a general cost in the order of twice the STAGE 1 estimates.

In the event that adequate funds are not available to complete STAGE 1 in its entirety, I recommend that the work be carried out in the general order indicated as funds become available.

Respectfully submitted,

Charles A. R. Lamble, P. Eng.  
HIGHLAND GEOLOGICAL SERVICES LTD.

2 December 1974

  
DEC 2 1974

The seal is circular with a double-line border. The outer ring contains the text 'PROFESSIONAL ENGINEER' at the top and 'BRITISH COLUMBIA' at the bottom. The inner ring contains 'PROVINCE OF' at the top and 'C.A.R. LAMBLE' at the bottom. A signature 'C.A.R. Lamble' is written across the seal. Below the seal is a rectangular stamp with the date 'DEC 2 1974'.

REFERENCES

1. Cairnes, C.E., 1937, Geology and Mineral Deposits of Bridge River Mining Camp, B.C., G.S.C. Mem. 213.
2. Cairnes, C.E., 1943, Geology and Mineral Deposits of Tyaughton Lake Map-Area, B.C., G.S.C. Paper 43-15.
3. McCann, W.S. 1922 Geology and Mineral Deposit of Bridge River Map-Area, B.C., G.S.C. Mem. 130.
4. B.C. Dept. of Mines Annual Report, 1937.

CERTIFICATE

Re: PRELIMINARY GEOLOGICAL REPORT  
"ZINC" MINERAL CLAIMS  
Lillooet M.D., B.C.

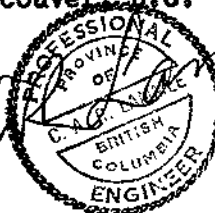
for  
THUNDER CREEK MINES LTD. (NPL)

2 December 1974

I, Charles A. R. Lammle, hereby certify that:

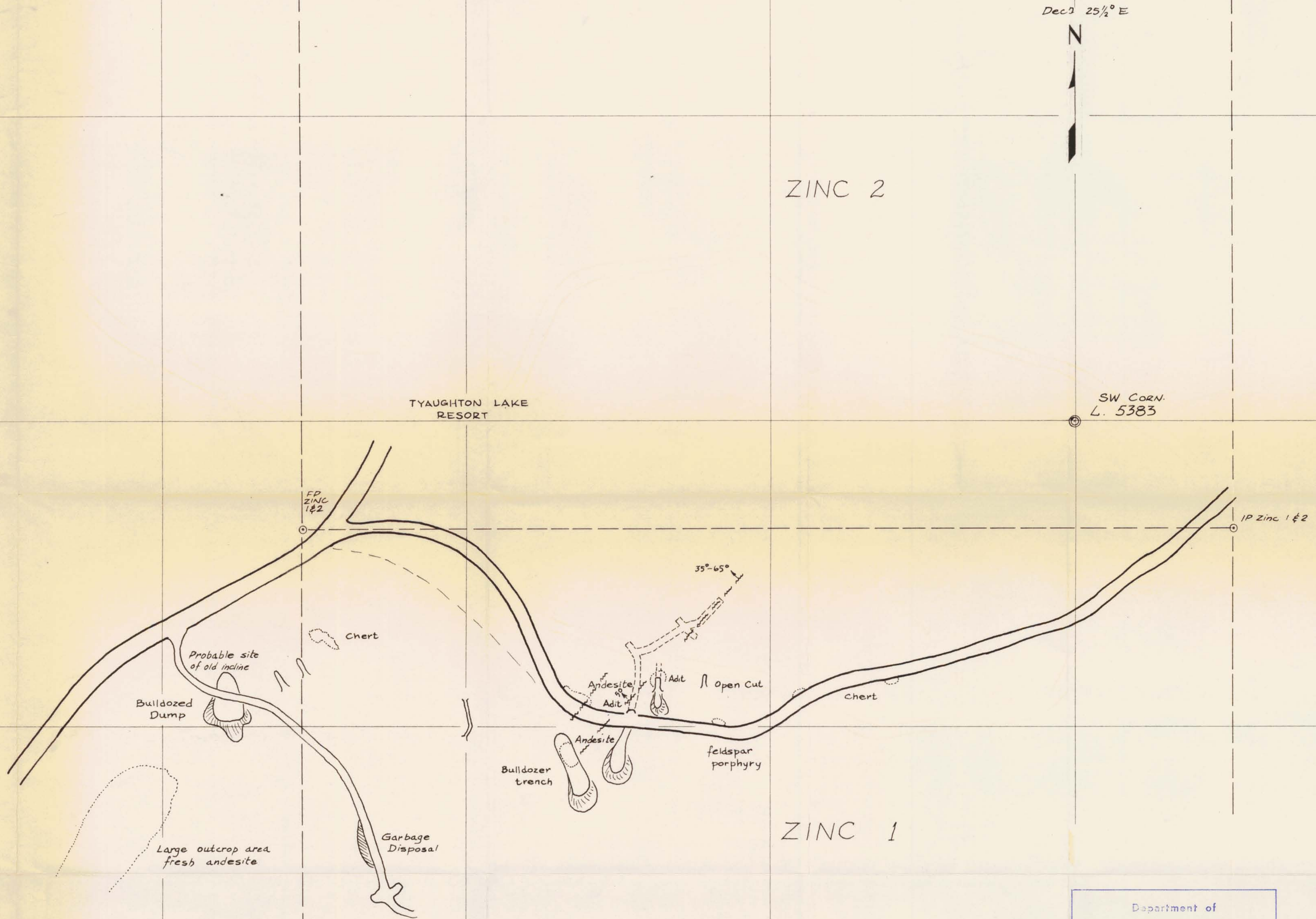
1. I am a registered professional geological engineer residing at 939 Adderley Street, North Vancouver, B.C.
2. I am a graduate of the University of British Columbia, having been granted the B.A.Sc. degree in Geological Engineering in 1962.
3. I have practised my profession since 1962.
4. I have been a member of the Association of Professional Engineers of British Columbia continuously since March, 1965.
5. I have no interest, direct or indirect, in the above named mineral property, nor in the securities of the above named company. I have not been promised any such interest. The only remuneration I expect for work leading to this report is the amount of my normally rendered professional fee.
6. I hereby grant the above named company permission to use this report for its corporate purposes.

Charles A. R. Lammle, P. Eng.  
North Vancouver, B.C.



DEC 2 1974





ZINC 2

TYAUGHTON LAKE RESORT

Decl 25 1/2° E

SW CORN. L. 5383

FD ZINC 1 & 2

IP Zinc 1 & 2

35°-65°

Chert

Probable site of old incline

Bulldozed Dump

Andesite

Adit

Open Cut

Chert

Bulldozer trench

Andesite

feldspar porphyry

ZINC 1

Large outcrop area fresh andesite

Garbage Disposal

5325  
MAP 3

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5325 MAP #3



THUNDER CREEK MINES LTD  
'ZINC' CLAIMS  
TYAUGHTON LAKE  
92 J 15 W LILLOOET MD BC