

8H-1304-13336
12/85

PROSPECTING REPORT
ON THE PERL 1 (6 UNIT) MINERAL CLAIM
PROSPECT CREEK AREA
NICOLA MINING DIVISION
NTS 92I/3E

LATITUDE 50° 01'
LONGITUDE 121° 05'

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

Owner: Aurun Mines Ltd.
Operator: Aurun Mines Ltd.
Author: Emmett Horne
Date: December 15, 1984

13,336

PROSPECTING REPORT ON PERL 1

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1.0 Introduction

1.1 General

This prospecting report on the Perl 1 (6 unit) mineral claim record number 1321 is submitted to the British Columbia Department of Energy Mines and Petroleum Resources in compliance with the Mines Regulation Act pertaining to application for assessment credit for the work done on the property during the 1984 field season.

The work was done on the claims on behalf of Aurun Mines Ltd., by Mr. J. Kruszewski (Geologist) and Mr. D. Kure (Assistant). The field work was done on the 27th and 28th of July 1984, the report is written by E. Horne (Geologist) with the assistance of Messrs. J. Kruszewski and D. Kure in December 1984.

The location of a perlite occurrence was determined by the 1984 prospecting effort.

1.2 Location and Access

The Perl 1 (6 unit) mineral claim located at latitude $50^{\circ} 01'$ longitude $121^{\circ} 05'$ is in the Prospect Creek area of the Nicola Mining Division, NTS 92I/3E. A claim location map is enclosed as Figures 1 and 2.

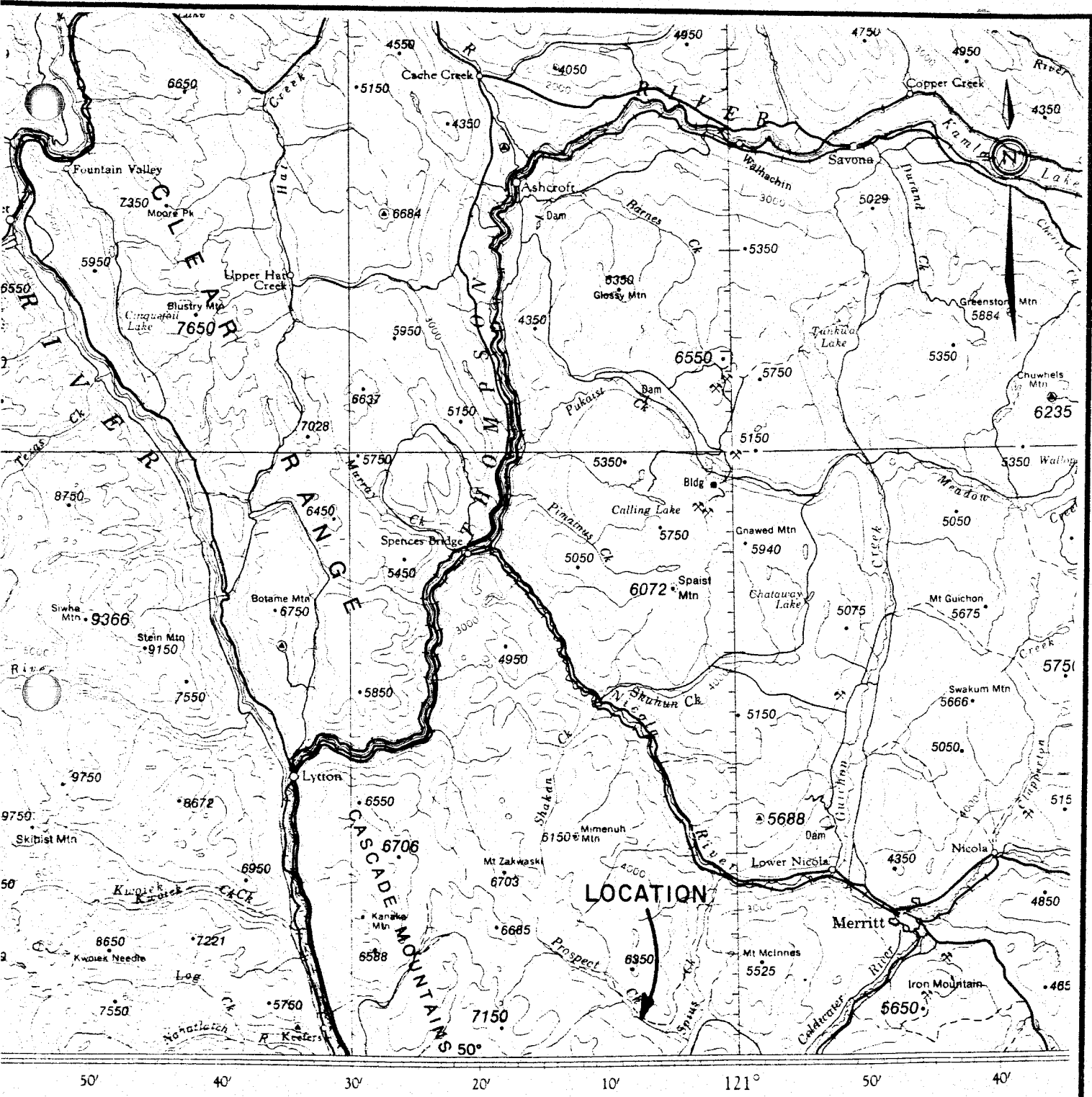
Access to the claim is by the Prospect Creek forestry road approximately 20 kilometres from the community of Canford, British Columbia. The forestry road begins in Canford, the road crosses the Nicola River and Spius Creek. The road is shown on the 1:50,000 scale map enclosed as Figure 2.

Access to the claims is restricted to dry weather or use by logging companies operating in the area. Periods of heavy rainfall or snowfall and intense logging generally make the road inaccessible.

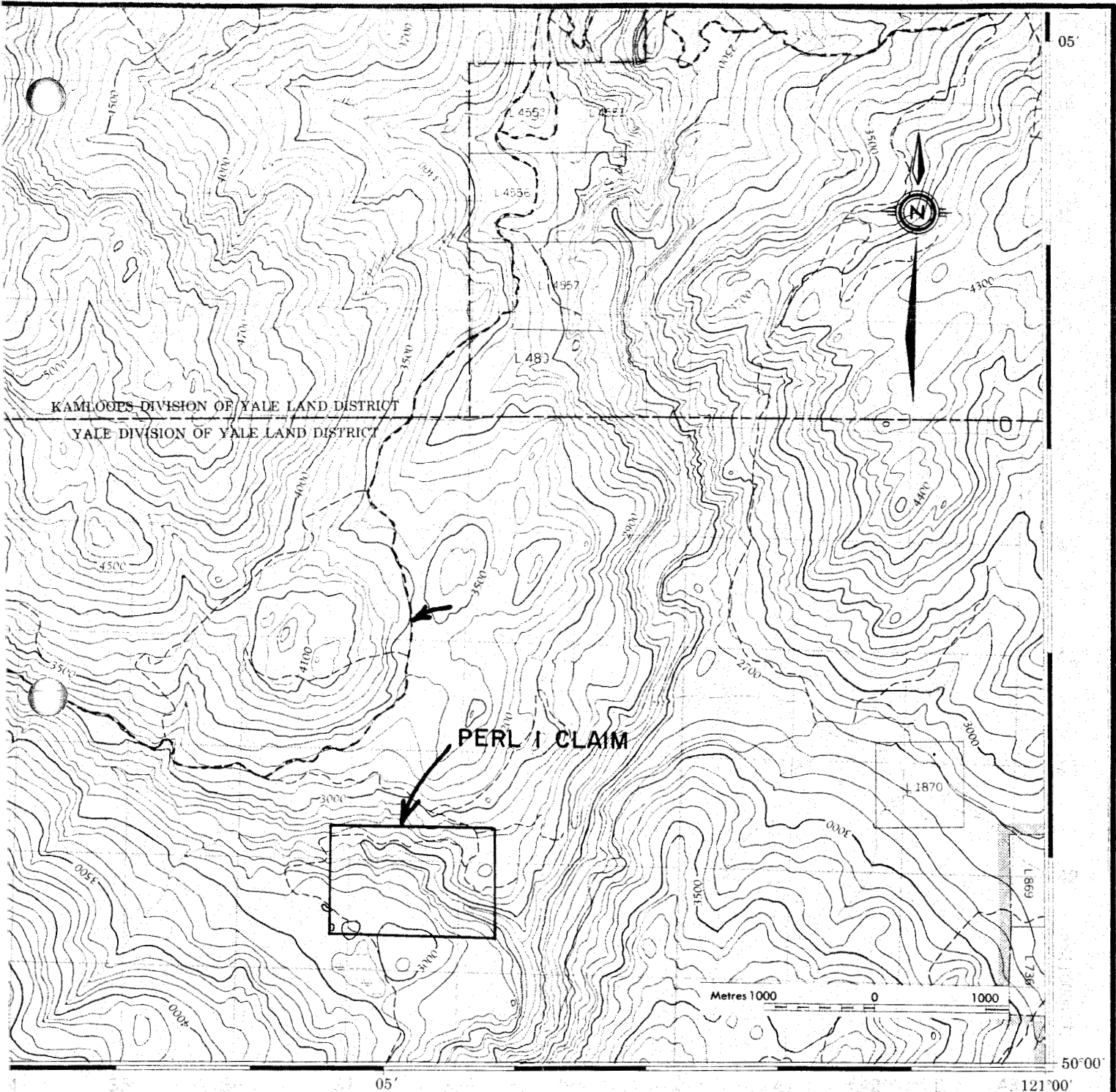
1.3 Topography and Climate

The topography of the Perl 1 claim is very steep with cliffs on both sides of the Prospect Creek canyon. The canyon walls are in the order of 150 metres high at the junction of Spius and Prospect Creeks. The topographic elevations range from 730 metres to 950 metres AMSL.

The climate of the area is moderate with relatively low precipitation (semi-arid) the region is moderately forested with pine, frequent open areas often contain grassy meadows of range land.



LOCATION MAP: Perl 1 Mineral Claim		
SCALE: 1:500,000	APPROVED BY:	DRAWN BY E.H.
DATE: Dec. 28/84	AURUN MINES LTD.	REVISED
PROSPECT CREEK AREA NICOLA MINING DIVISION		NTS 92I/3E
		DRAWING NUMBER
		FIG 1



LOCATION MAP: Perl 1 Mineral Claim		
SCALE: 1:50,000	APPROVED BY:	DRAWN BY E. H.
DATE: Dec. 28/84	AURUN MINES LTD.	REVISED
PROSPECT CREEK AREA NICOLA MINING DIVISION		NTS 92I/3E
		DRAWING NUMBER FIG. 2

1.4 History and Ownership

The claims were originally held by Mr. William B. Kure (FMC 211452) and were sold to Aurun Mines Ltd. (Owner/operator) of #910 640 - 8 Ave. S. W., Calgary, Alberta by Bill of Sale, dated October 6, 1984.

The main interest in the claims originates from a perlite occurrence reported in a British Columbia Minister of Mines report by J. W. McCammon, 1954. This report mentions the following: "Prospect Creek (50° 121° S.E.). In the summer of 1953 L. Frenier recorded the Obsidian claim on a small showing of volcanic glass in the valley of Prospect Creek about 14 miles southwest of Merritt. The glass outcrops 10 feet above water-level on the west bank of Prospect Creek about 350 feet south of the bridge where the Spius (Petite) Creek trail crosses Prospect Creek. This is half a mile up Prospect Creek from its junction with Spius Creek.

The road extends 7.2 miles up the west side of Spius Creek from a bridge that crosses the Nicola River 1 1/2 miles west of Canford. A good pack-trail continues on up Spius Creek from the end of the road. This trail crosses Prospect Creek about 5 miles from the road end.

The glass is in volcanic rocks of the Lower Cretaceous Kingsvale group. It is exposed for about 120 feet along and 30 feet up the creek bank. Structural relationships are not clear, but there appears to be a layering that strikes north 27 degrees east and dips 45 degrees southeast. The glass layer seems to be about 10 feet thick. Under the glass is a zone consisting of a glass matrix full of stony spherules, then a layer with a stony matrix full of spherules, next brick-red porphyry, and then grey-green porphyry. One small exposure shows a 3 inch-thick layer of clayey material on top of the glass layer and dark grey-green porphyry above the clay. Whether the clay represents a thin ash bed or fault gouge is not known. Other rocks seen on the claim include coarse breccia, amygdaloidal, vesicular, and porphyritic andesites and basalts, and a few flows of spherulitic and flow lined rhyolite. No other outcrops of glass were found.

The glass varies through shades of brown, red, green and grey. It has a very pitchy lustre. In thin sections it shows perlitic fractures, although in the hand specimen these are not conspicuous. A few scattered feldspar crystals and some spherules are present throughout the glass. Laboratory tests indicate that the glass will expand readily when heated to form a light but fragile product."

Previous work done during 1983 by Aurun Mines Ltd., failed to locate the perlite occurrence. A geological preliminary report (#83-933-11852) was submitted to the British Columbia Department of Energy, Mines and Petroleum Resources in December 1983 and was approved on July 20, 1984. The previous report mentions that the perlite occurrence was not located. The 1984 field prospecting was done in order to locate, measure and preliminary test the known perlite occurrence and to assess the potential for the occurrence of other perlite zones.

2.0 Summary of Work Done

2.1 Prospecting

Mr. J. W. Kruszewski (Geologist) and Mr. D. Kure (Assistant) spent July 27th and 28th, 1984 (2 days) field prospecting for the perlite occurrence on the Perl 1 mineral claim. The location of the perlite showing was determined to be on Unit 2 of the claim and is shown on the enclosed Map 1-1.

The total area prospected was approximately 1.2 kilometres by 0.1 kilometres; prospecting was restricted to searching for perlite occurrences. The total area prospected, 0.12 square kilometres, is also shown on Map 1-1.

The perlite showing occurs approximately 100 metres south of an old broken down bridge. The perlite is on the west bank of Prospect Creek and is exposed near water level for a distance of six metres. The main perlite exposure consists of two parallel zones 1.0 and 1.1 metres thick separated by a spherulitic green and red band or lens of glassy rhyolite. Another small exposure of perlite 2.0 metres wide occurs 30.0 metres up slope of the main occurrence. The perlite zone resembles a feeder dike structure striking Azimuth 030 with dips ranging from 40 to 60° southeast. The perlitic dike zones appear to terminate on the north east strike direction against an andesite bed, it may be that this andesite flow unconformably overlies the perlitic dike feeder zones. A sketch map of the perlite zones is shown as an insert on Map 1-1. Other rock types in the vicinity of the showing are porphyritic andesite, flow banded glassy rhyolite, spherulitic glassy rhyolite, rhyolite porphyry spherulitic perlite and perlite. The perlite zones may represent chilled contact zones of a feeder dike.

2.2 Outcrop and Sample Descriptions

The footwall zone of the perlite consists of glassy banded spherulitic rhyolite and porphyritic rhyolite. The units vary in color from light greenish maroon to reddish with spherules (dark maroon) from 0.5 mm - 3.0 mm. The hanging wall zone consists of dark red rhyolite porphyry. A zone of glassy spherulitic rhyolite occurs as a lens, alteration band or central unchilled zone between two main zones of perlite. The perlite is generally of a brown to amber color, contains some patches or devitrified glass, some spherules 3-5% free quartz, feldspar phenocrysts and some clay mineral (product of devitrification). Some columnar jointing structures were noted in the perlitic outcrop zones.

2.3 Field Testing

Field expansion testing with the use of a spitfire model 300 series hand held propane torch was done. This torch has a turbine swirl rotor which can maintain a 3400° F flame. Perlite expands in contact with an open flame of approximately 1600° F. The procedure for testing is to obtain representative fragments of the perlite from 2-5 mm size and apply the torch flame to them. If the material is of suitable quality expansion will start almost immediately accompanied by a cracking sound. The expanded product will be white in color. This field test does not provide quantitative results, but can assist considerably in the selection of samples for more detailed testing. Field testing done on the perlite showing indicated that two zones 1.0 and 1.1 metres thick contained perlite that expanded moderately well. The zones may represent chilled contact zones or margins of a rhyolitic feeder dike system. The total number of field tests was seven, two each on both of the quality perlite zones and the remaining three in the adjacent contact areas. The results of this testing are included in Appendix 1.

2.4 Petrographic Sampling

Five samples were collected for the purposes of being able to do petrographic thin sections if needed.

Due to the small extent of the known deposit this petrographic work has been postponed. The samples will be kept for display purposes and possible comparative studies in the future.

The samples consist of the following.

- Reddish spherulitic glassy rhyolite from the centre band zone of the main showing. Spherules comprise 35% of the sample, are dark maroon in color and range from 0.5-3.0 mm size. Minor greenish glassy flow banding structures 3.0 mm thick occur in the sample.

- Dark brown to amber pitchy perlite with 2% spherules minor free quartz and feldspar phenocrysts up to 1.0 mm size with minor white clay mineral alteration lining minor fractures.
- Dark grey to maroon basalt andesite with microphenocrysts of feldspar 5% of sample 0.1-0.3 mm size.
- Light grey maroon flow banded glassy rhyolite.
- Light brown to amber perlite, exhibiting columnar jointing.

2.5 Laboratory Testing

Samples were sent to the expander plant of Aurun Mines Ltd., at Aldergrove, B. C. The results of these tests are summarized and included in Appendix 1.

2.6 Conclusions

The conclusions regarding the economic significance of the showing are as follows

- a. The deposit does not contain a sufficient amount of good quality perlite or a thick enough mining width of quality perlite for present mining consideration.
- b. The perlite zone is difficult to access, it occurs in steep terrain, requiring costly road and bridge construction.
- c. The perlite (best quality available) is slightly devitrified and would require excessive mining quality control. The deposit is also narrow and prone to mining dilution.
- d. The structural attitude of the deposit is such that stripping would be required during the entire mining process.

2.7 Recommendations

The property should be held by Aurun Mines Ltd., for this one additional year. Further work on the property is not recommended by the author.

3.0 ITEMIZED COST STATEMENT

3.1 Wages

J. Kruszewski 2 days on the 27th and 28th of July 1984 @ \$150.00/day	\$ 300.00
D. Kure 2 days on the 27th and 28th of July 1984 @ \$75.00/day	150.00

3.2 Travel

J. Kruszewski & D. Kure one half day travel on July 26 and 29th of July 1984. From Kamloops, British Columbia	no charge
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3.3 Food, Accommodation and Supplies

Motel Accommodation (one night)	32.00
Food	39.01
Supplies	5.21

3.4 Transportation

Vehicle rental 4 x 4 truck (2 days @ \$25.00)	50.00
Gasoline	40.65

3.5 Testing

20.00

3.6 Cost of Report

Report writing 1 day at \$215.00	215.00
Typing & Xerox 1 day at \$100.00	85.00

Total expenditures on claim	\$ 936.87
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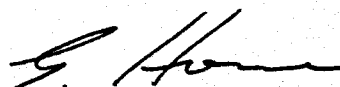
Total value of work requested only	\$ 600.00
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4.0 QUALIFICATIONS

4.1 Statement of Qualifications (Author)

I, Emmett J. Horne, of the City of Calgary in the Province of Alberta and the City of Victoria, British Columbia do certify the following.

1. I have been employed as a geologist with Aurun Mines Ltd., since July of 1983, both as a permanent employee and as a contract geologist.
2. I am a graduate of the University of Saskatchewan with a degree in Geology in 1967 and have practiced my profession continually since then.
3. I am a member of the Canadian Institute of Mining and Metallurgy.
4. Previous employers and positions are as follows:
 - a) Saskatchewan Department of Mines and Resources (field season).
 - b) Ontario Department of Mines (field season, Senior Geologist).
 - c) Noranda Mines, Geco Division (two years Staff Geologist).
 - d) Scurry-Rainbow Oil Ltd., and Bolivia Limitada (two years Project Geologist).
 - e) Iron Ore Company of Canada (six years Geologist and supervisory positions).
 - f) Syncrude Canada Ltd. (four years, Senior Geologist, Operations).
 - g) Alsands Energy Ltd. (one and a half years, Senior Geologist).
 - h) Contract geologist since February 1983 in both tarsand and mineral exploration geological work.
5. I worked on the site during 1983 field season and have worked with Mr. J. Kruszewski on the preparation of this report and perlite prospect location.
6. I have no direct financial interest in the property. I do have shares in Aurun Mines Ltd.



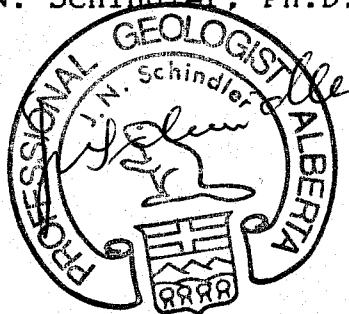
E. J. Horne
Geologist

4.2 Professional Certification

I, John Norman Schindler, of the City of Calgary, in the Province of Alberta, do hereby declare that:

1. I am registered as a Professional Geologist in the Province of Alberta.
2. I am a practising Consulting Geologist, and my office is located at 22 Lake Christina Close S.E. Calgary, Alberta, T2J 2R9.
3. I hold the following degrees: B.Sc., Hons. Geology (1960), McGill University, Montreal; M.Sc. Geology, University of London, England (1963); Ph.D. Geology, McMaster University, Hamilton, Ontario (1975).
4. I have practised my profession since graduation in 1960, and have held permanent positions with the following companies: The Iron Ore Company of Canada Ltd., Amax Exploration Inc., Western Mines Ltd. (now Westmin Resources Ltd.), Union Oil Company of Canada Ltd.
5. That this report entitled "Prospecting Report on the Perl 1 (6 units) Mineral Claim, Prospect Creek Area, Nicola Mining Division, NTS 92I/3E." is a summary of work performed on said claim in 1984.
6. That to the best of my knowledge the acquisition of the data and expenditure claimed for the performance of work as presented on the Statement of Exploration is correct.
7. That I have no direct financial interest in the property. I do have an indirect interest in Aurun Mines Ltd.

J. N. Schindler, Ph.D., P. Geol.



APPENDIX 1

SUMMARY OF ANALYTICAL TESTING

FIELD AND LABORATORY

To: E. Horne
From: J. Chapman
Re: Perl Mineral Claims, Qualitative Perlite Testing

December 22, 1984

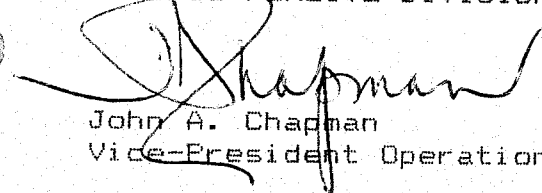
On the above date I tested the perlite samples which you had forwarded to the Aldergrove test plant operation from the Perl mineral claims near Merritt, B.C.

The samples were broken into 5mm pieces for heating to expansion range with a propane fired brazing torch.

All samples demonstrated good expansion rate, degree of expansion (factor) and excellent white colour. Expansion was not violent which suggests proper water content (less than 3%), yielding a cohesive non-shattered product.

If you feel there is an economically mineable quantity of this perlite I will run a comprehensive set of quantitative tests.

AURUN MINES LTD.
PACIFIC PERLITE DIVISION


John A. Chapman
Vice-President Operations

PROPANE TORCH 1984 FIELD TESTING

Field Testing Summary

Test Location 1 Amber perlite, moderate expansion sample width 0.3 metres, white product & some black flakes.

Test Location 2 Amber perlite, moderate expansion sample width 0.3 metres, buff white product.

Test Location 3 Centre reject zone - poor to nil expansion

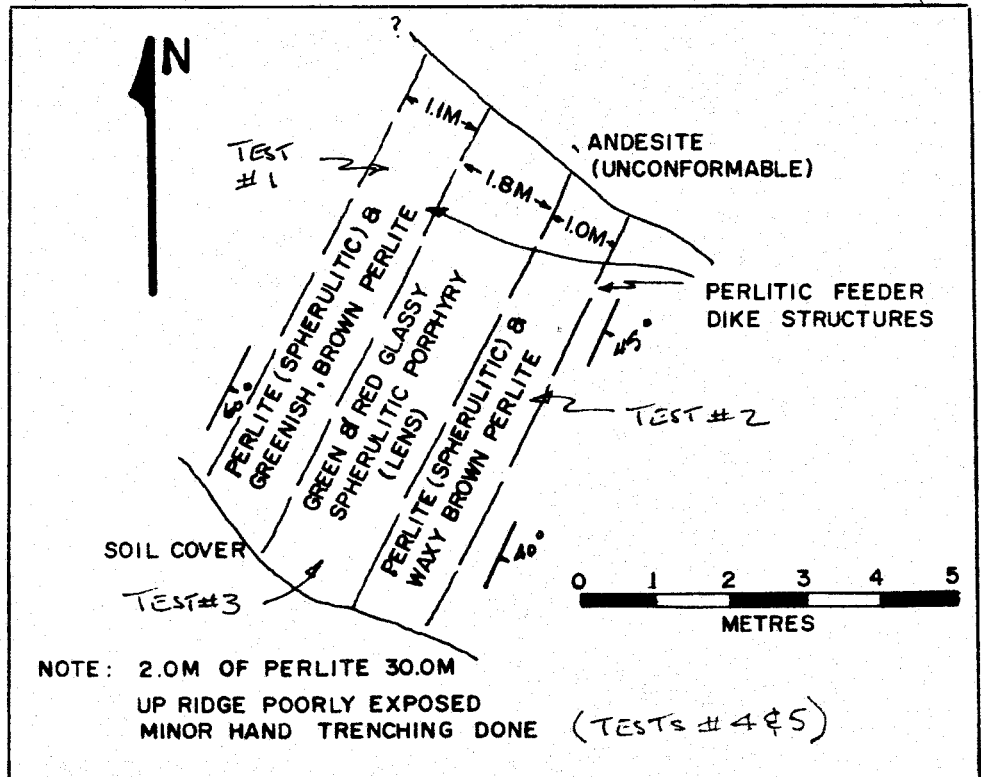
Test Location 4 Brownish green band of good quality perlite 0-3 metres wide, expansion good, white product.

Test Location 5 Brown band of resinous good quality perlite 0.3 metres wide expansion moderate, white product.

Test Location 6 No expansion - glows.

Test Location 7 No expansion - glows.

Approximate Sample Locations



APPENDIX 2

STATEMENT OF EXPLORATION
AND DEVELOPMENT (COPY)

C. DRILLING

(Details in report submitted as per section 8 of regulations.)
 (The itemized cost statement must be part of the report.)

COST
<i>nil</i>

D. GEOLOGIC GEOPHYSICAL, GEOCHEMICAL

(Details in report submitted as per section 5, 6, or 7 of regulations.)
 (The itemized cost statement must be part of the report.)
 (State type of work in space below.)

--

TOTAL OF C AND D

nil

Who was the operator provided the financing?

Name

Address

Portable Assessment Credits (PAC) Withdrawal Request

Amount to be withdrawn from owner(s) account(s):

AMOUNT

Name of Owner

(May be no more than 20 per cent of value of the approved work submitted as assessment work in C and (or) D.)

1.
2.
3.
4.

TOTAL WITHDRAWAL

nil

TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL

nil

I wish to apply of this work to the claims listed below.

(State number of years to be applied to each claim, its month of record, and identify each claim by name and record no.)

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (if D not applied to claims)

Name

AMOUNT

In owner(s) name.

1.
2.
3.

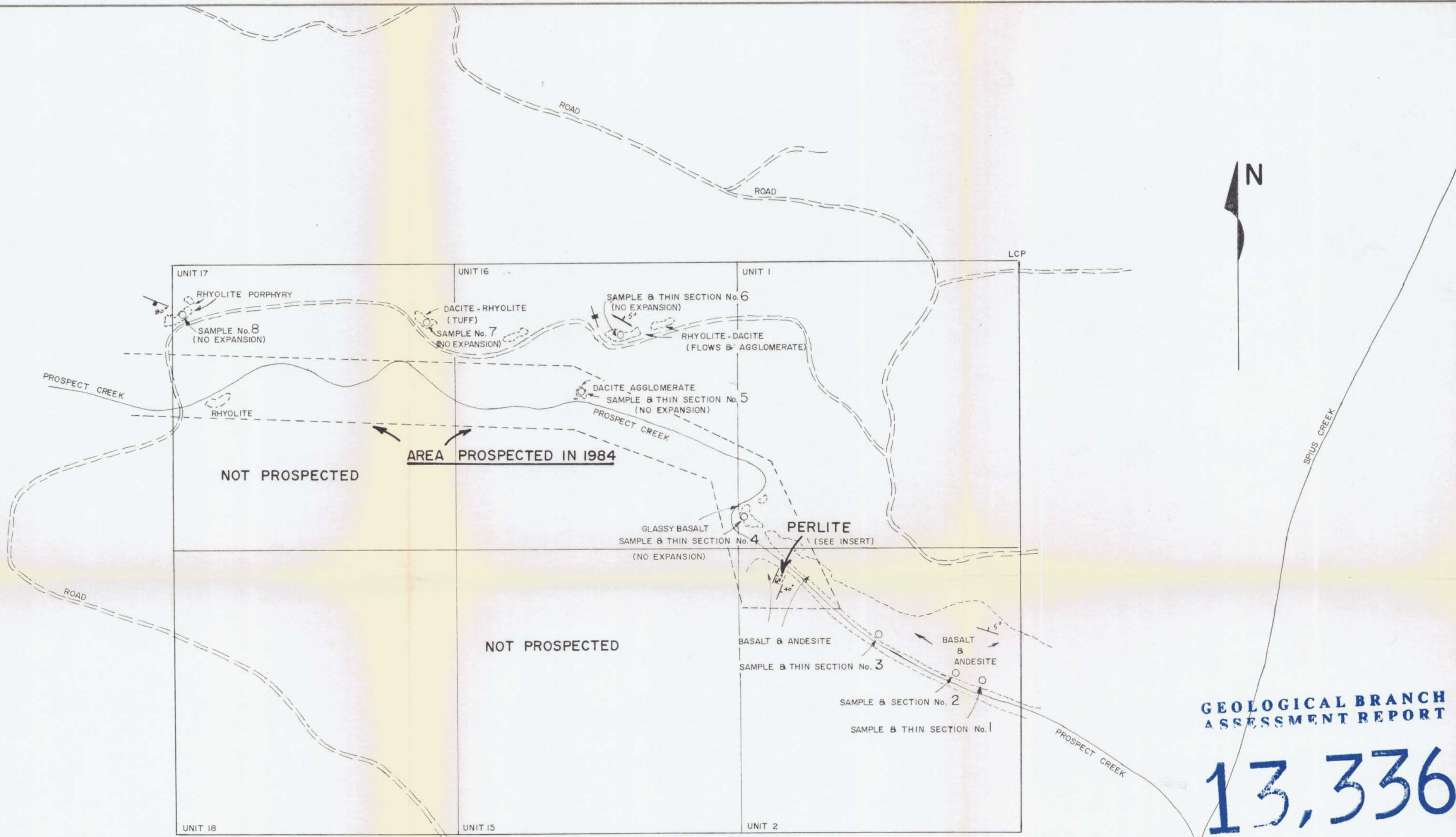
In operator(s) name (party providing the financing).

1.
2.
3.

nil

[Signature]
 (Signature of Applicant)

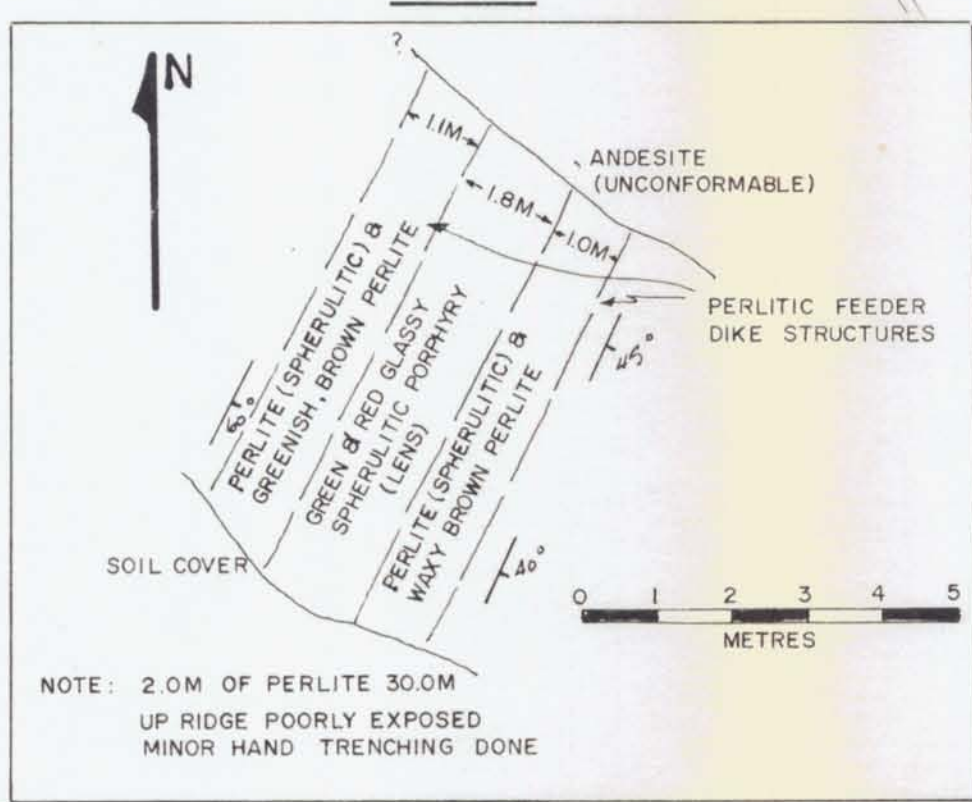
COPY



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,336

INSERT



NOTE: 2.0M OF PERLITE 30.0M UP RIDGE POORLY EXPOSED
MINOR HAND TRENCHING DONE



LEGEND

- OUTCROP
- SAMPLING AND TEST LOCATION

NOTE: ALL WORK DONE BY PACE & COMPASS
MAP REVISED JAN 1985

PERL I MINERAL CLAIM		
SCALE: 1:5000	APPROVED BY: <i>[Signature]</i>	DRAWN BY: E. HORNE
DATE: JANUARY 1986	NTS 921/3E	REVISED
MAP I-1		
DRAWING NUMBER		