

MINERAL RESOURCES BRANCH ASSESSMENT REPORT <b>10448</b> No. _____
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GEOLOGICAL INVESTIGATION  
OF THE  
LATE #1 MINERAL CLAIM  
NEAR MERRITT, B. C.  
NICOLA MINING DIVISION  
92 H/16

part 2  
pg 2

Prepared for  
INTER-CONTINENTAL ENERGY CORP.  
OF VANCOUVER, B. C.

ARCTEX ENGINEERING SERVICES

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November 1981

## SUMMARY

The "Late" claim owned by Inter-Continental Energy Corporation is located 41 km southeast of Merritt, B.C., in the Nicola Mining Division. The claim is comprised of 9 units, approximately 225 hectares, and can be reached by gravel and dirt road from the Merritt-Princeton highway.

Between September 22 and September 26, 1981, Arctex Engineering Services conducted geological mapping of the claim. Much of the property is covered by glacial debris and the waters of Thumb Lake. Rock outcrops in the eastern and southwestern part of the claim belong to the Nicola Group of Upper Triassic age. Red to green volcanic flows (?) and breccias contain small, irregular patches of epidote alteration, a few of which contain disseminated chalcopyrite and/or chalcocite.

No further exploration of the property is recommended unless strongly anomalous zones are detected with recent geochemical and geophysical surveys.

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## INTRODUCTION

The "Late No. 1" mineral claim consists of 9 units, approximately 225 hectares, which are located 41 km southeast of Merritt, B. C. Access to the property may be accomplished by four-wheel-drive vehicle. From the Kentucky Lake-Alleyne Lake turn-off on Highway #5,  $4\frac{1}{2}$  km south of Aspen Grove, gravel and dirt roads wind eastward and then southerly for 18.5 km to the property. The coordinates are approximately  $120^{\circ}26'$  west longitude and  $49^{\circ}49\frac{1}{2}'$  north latitude. Thumb Lake, which lies within the claim, is approximately 4450 feet (1357 m) above sea level.

Between September 22 and September 26, 1981, an examination of the entire property was undertaken. A survey grid, previously established by Geotronics Ltd. for use during soil geochemical, magnetometer, VLF-electromagnetic and IP (Induced Polarization) surveys, aided in geological mapping.

No buildings or structures exist on the property. An access road, which runs diagonally through most of the claim, and a few shallow trenches are the only improvements.

The legal corner post has been established at the southeast corner of the property. This is also the beginning point for the current survey grid. Flagging, blazes and cut lines delineate geophysical traverses.

Kelly (1980) summarizes previous exploration on the claim, most of which is connected with exploration in 1973 on the "Buck Claims" held by Great Plains Development of Canada Ltd. Presently, claim posts along the east side of the property show ownership by Brenda Mines Ltd., dated April 18, 1979.

## CLAIM STATUS

The "Late" claim is comprised of 9 units totaling approximately 225 hectares. The legal corner post was observed at the southeast corner of the property in the drainage connecting Thumb Lake with Siwash Creek. Several other unit corner posts were seen on the property, each dated April 1979 and staked by L. McClelland.

Several other posts were seen along the east boundary of the Late claim which were called "Siwash", also dated April 1979 by Brenda Mines Ltd. Evidently the adjacent ground is also being prospected.

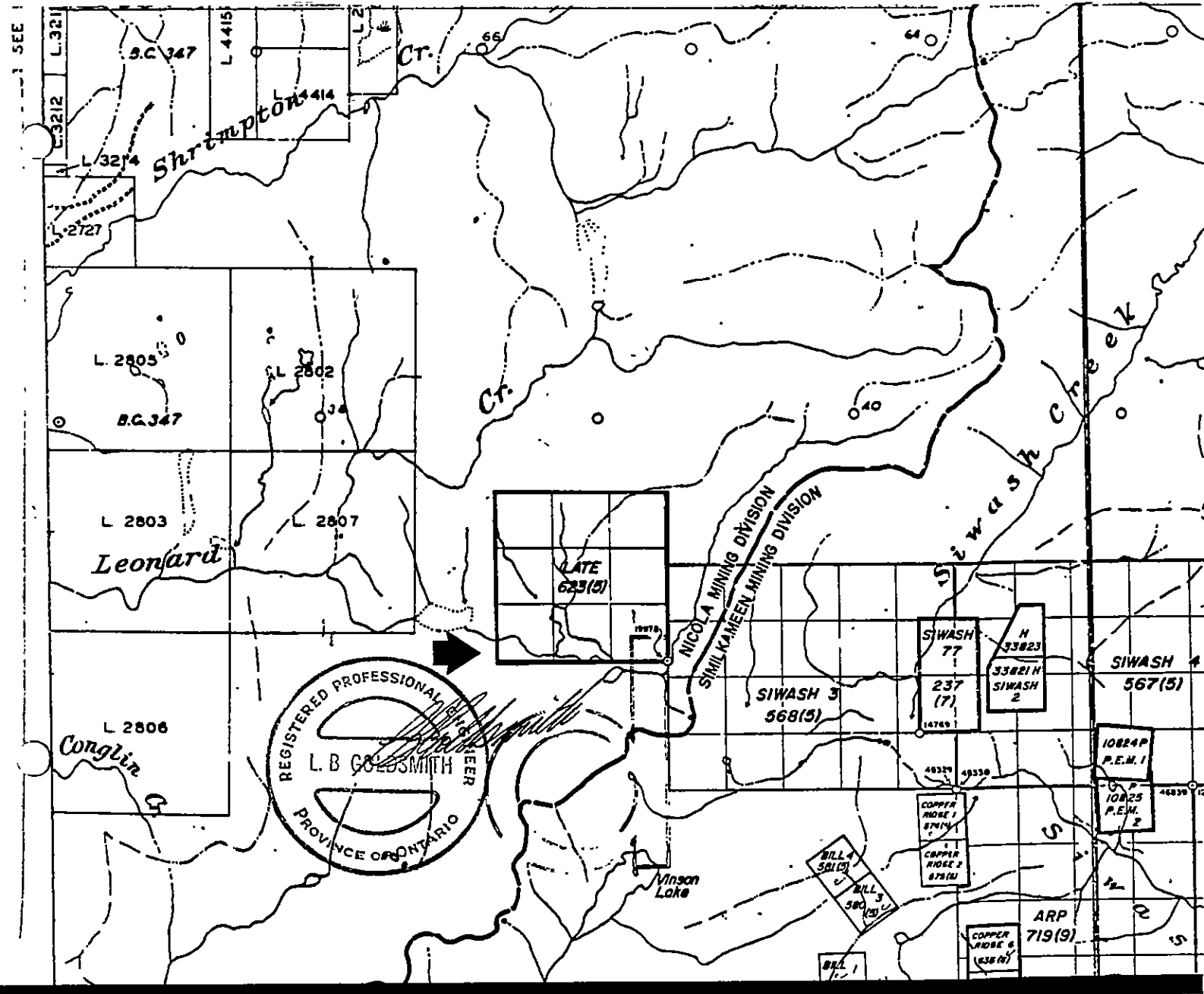
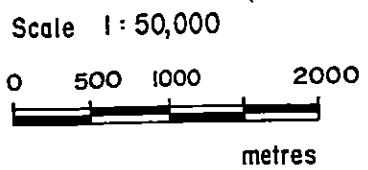


FIGURE 1

# CLAIM MAP



## INTER-CONTINENTAL MINING CORP.

### LATE No. 1 Mineral claim 623 (5)

SIWASH CREEK AREA, B.C. NICOLA M.D. N.T.S. 92H/16W

ARCTEX ENGINEERING SERVICES



OCTOBER 1981

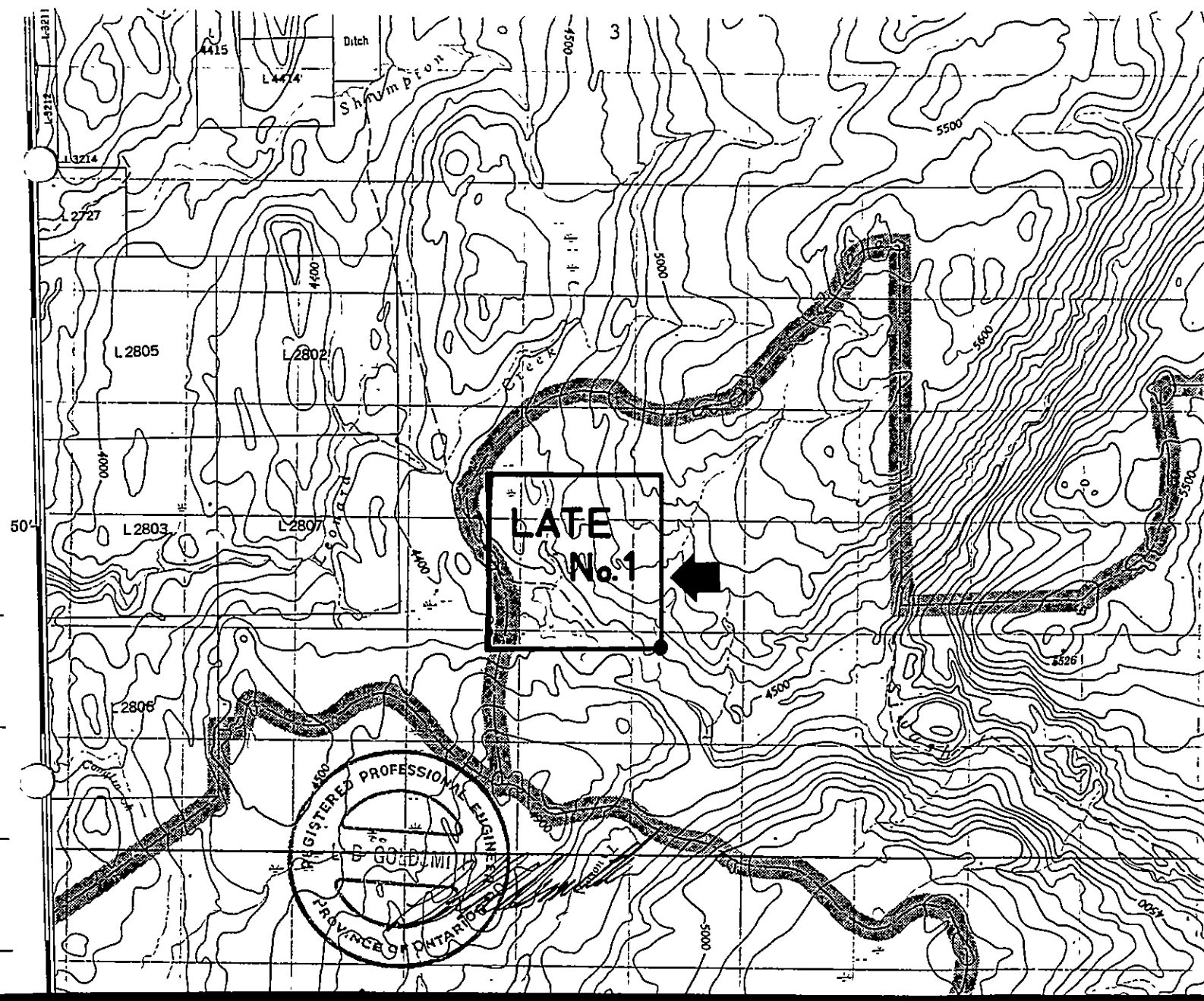
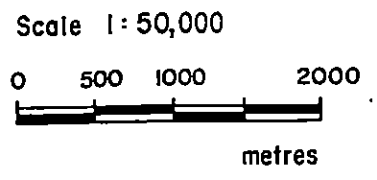


FIGURE 2

# LOCATION MAP



## INTER-CONTINENTAL MINING CORP.

**LATE No. 1** Mineral claim 623 (5)  
 SIWASH CREEK AREA, B.C. NICOLA M.D. N.T.S. 92H/16W

ARCTEX ENGINEERING SERVICES

OCTOBER 1981



## GEOLOGIC SETTING

The "Late" claim is underlain by volcanic flows and breccias of the Nicola Group of Upper Triassic age. Geological mapping by Rice (1947) indicates that the area of the "Late" claim lies near the eastern part of the Nicola Group which extends from the international border to Kamloops.

Recent mapping by Preto (1979) between Merritt and Princeton has been helpful in subdividing the Group. Although this map does not include the "Late" claim area, extrapolation of data indicates that the eastern volcanic belt lies very close to the "Late" claim. A shallowly-eroded volcanic centre with a northerly elongated stock of micromonzonite porphyry and breccia lies between Missezula Lake and the "Late" claim. The stock and outlying volcanics and breccias have a similar composition. Rock fragments within clastic units in this area have been derived from this stock. Massive to crudely bedded, reddish to grey, lahar deposits that contain abundant clasts of pink and red microsyenite, micromonzonite porphyry and purple trachyandesite compose the Nicola group in this area.

Less than 15 km east of the "Late" claim, biotite-hornblende granodiorite of the Pennask Pluton can be found.

## LOCAL GEOLOGY

### Lithology

At the "Late" claim, the Nicola Group can be divided into at least two map-units. North and east of Thumb Lake, varicoloured andesite and andesite breccia are common. Fragmental size of the breccia is generally <3 cm, clasts are rounded to angular with a matrix of reddish-brown, purplish-brown, or maroon to greenish-brown or grey-green. Brecciation is often obscured or very fine, which creates difficulty in distinguishing it from andesite flows or tuffaceous andesite. Various amounts of epidote, chlorite or hematite may contribute to colour changes of the volcanics within a short distance.

Outcrops southwest of Thumb Lake belong to the second major division of the Nicola Group at the property. Augite andesite is commonly pale to dark green. Carbonate and epidote are locally common, although reddish-hematite was not seen. Minor autobrecciation of the greenish lava has taken place. A more distinctive breccia zone has been mapped within the andesite unit. It is characterized by pink, fine-grained granitic (?) clasts, <6 cm wide, within dark green andesite breccia.

Several porphyritic dacite dykes have been mapped on the "Late" claim. They vary in width from 1 to 7 metres and have been traced for at least 300 metres in strike length. They are usually brown to greenish-brown with distinct feldspar phenocrysts. Alteration of feldspars to clay has taken place. Most dykes display tan to orange-brown limonitic oxidation.

At the north, east, and south margins of the property intrusive dykes have been mapped. These are fine-grained reddish-brown granodiorite, weak chloritic-altered medium- to coarse-grained quartz diorite, and fresh medium-grained diorite, respectively. Each is less than 5 m wide but only the southerly exposure was extensive enough to be defined as a north-south trending dyke. These are the only silicic exposures on the property.

### Stratigraphy

Correlation of the Nicola Group in the map-area with the detailed work of Preto (1979), farther to the west, is speculative. Nevertheless, it does appear that the augite-andesite and coeval pink breccia are part of the Eastern Belt of volcanics. The red and green breccia of the eastern part of the map-area also show similarities to Preto's Eastern and Central Belts of volcanics.

Bedding planes or marker horizons were not observed in the map-area. It can only be assumed that the volcanics of the "Late" claim conform to the general northerly trend which has been determined to the east by other workers. A lack of marker beds and lateral discontinuity of rock units have made estimates of thickness impossible.

The numerous porphyritic dacite dykes in the "Late" claim postdate the Nicola Group. They may, however, be closely related in composition and only slightly younger in age.



### Structure

Evidence of folding was not found at the property because of lack of bedding attitudes. No data were found to confirm the idea of Kelly (1980) that the "Late" claims lie on the east limb of a north-trending syncline within the Nicola Group.

Only one shear zone was found. It is a northeast-trending zone closely associated with brecciation and epidotization near the prospect pit at 500 N, 300 W.

Scrutiny of trends of calcite veins, and dacite dykes, shows a pronounced north-south direction of penetration. A secondary, yet distinct, east-west trend is also seen. These zones were planes of weakness within the Nicola prior to fluid intrusion.

### Mineralization

In general the Nicola Group volcanics at the "Late" claim contain weak epidote, calcite and chlorite. Locally, increased concentrations of these minerals, especially epidote, have been mapped. Rarely patches of epidote up to 2 metres may contain hematite and disseminations of chalcopyrite, pyrite, or chalcocite.

An exploration pit 1½ m deep is located on a north-trending joint or small shear (?) at 500 N, 300 W. Strong epidote with traces of chalcopyrite and chalcocite (?) are present in red and green andesite breccia. A 1.5 m chip sample along the north wall of the pit contained 310 ppm copper. A select sample of strongly epidotized material with malachite from the dump of the pit contained 82 ppm copper, 2.4 ppm silver and 10 ppb gold.

Several other small patches of epidote or calcite veins were mapped in the eastern part of the property. None appeared to contain more than a minor amount of copper minerals. One of the stronger epidotized zones was sampled and found to contain only 240 ppm copper.

Porphyritic dacite dykes often display moderate limonitic oxidation and occasionally concentrations of chlorite. Hematite was also observed at the margin of a few of the dykes. On the whole, the dacite was fractured in a tabular fashion with more intense fracturing near the margin.

The granitic dykes are generally fresh. The quartz diorite at the eastern margin is lightly chloritized. The granodiorite at the north boundary contains pervasive limonitic oxidation of mafic minerals and/or pyrite.

## CONCLUSIONS

A large proportion of the "Late" claim is underlain by volcanic flows and breccias of the Nicola Group. A coeval pink fragmental breccia within augite andesite in the southwestern part of the property may be related to a shallowly eroded volcanic centre, 6 km to the west, as mapped by Preto (1979). The entire "Late" claim appears to fall within the eastern belt of the Nicola Group.

No evidence was found to support or detract from the ideas of Kelly (1980) concerning a major fault zone coincident with the Thumb Lake drainage.

Epidote, calcite and hematite occur in small irregular patches, generally less than 1 metre square, in the eastern part of the claim. Rare disseminations of chalcopyrite and/or chalcocite occur within a few of these epidote zones. The observed copper content of the Nicola Group volcanics on the "Late" claim is only slightly above what could be considered as background value.

## RECOMMENDATIONS

On geologic mapping evidence alone, there is no justification for continued exploration at the "Late" claim. However, if in the course of study of recent geophysical and soil geochemical data strongly anomalous zones are detected, core drilling may be warranted.

Vancouver, B. C.  
November 19, 1981



Paul Kallock  
Geologist

*L. B. Goldsmith*  
Looke B. Goldsmith, P.Eng.

## REFERENCES


- Kelly, S. F. (1980) Report to the Inter-Continental Energy Corp. of Vancouver, B. C. Concerning the Late Claim Group at Thumb Lake, near Merritt, Nicola Mining Division, B. C. Consultants Report.
- Preto, V. A. (1979) Geology of the Nicola Group Between Merritt and Princeton, B. C. Ministry of Energy, Mines and Petroleum Resources Bulletin 69.
- Rice, H. M. A. (1947) Geology of the Princeton Map-Area, B. C. Canada Dept. of Mines and Resources, Memoir 243, Map 888A.

## GEOLOGIST'S CERTIFICATE

I, Paul Kallock, do state: that I am a geologist to Arctex Engineering Services, 301 - 1855 Balsam Street, Vancouver, B. C.

I Further State That:

1. I have a B.Sc. degree in Geology from Washington State University, 1970.
2. I have engaged in mineral exploration since 1970, both for major mining and exploration companies and as an independent geologist.
3. I have co-authored the report entitled, "Geological Investigation of the Late #1 Mineral Claim Near Merritt, B. C.," dated November 19, 1981. The report is based on my fieldwork carried out on the property and from previously accumulated geologic data.
4. I have no direct or indirect interest in any manner in either the property or securities of Inter-Continental Energy Corp., or its affiliates, nor do I anticipate to receive any such interest.
5. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

  
Paul Kallock  
Geologist

Vancouver, B. C.

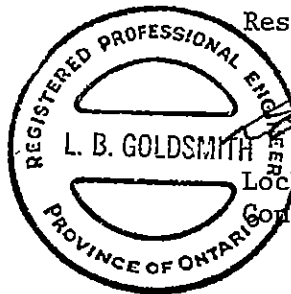
November 19, 1981

## ENGINEER'S CERTIFICATE

LOCKE B. GOLDSMITH

1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
2. I have a B.Sc. (Honours) degree from Michigan Technological University and have done postgraduate study in Geology at Michigan Tech, University of Nevada and the University of British Columbia. I am a graduate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
3. I have been engaged in mining exploration for the past 23 years.
4. I have co-authored the report entitled, "Geological Investigation of the Late #1 Mineral Claim Near Merritt, B. C.," dated November 19, 1981. The report is based upon fieldwork and research supervised by the author.
5. I have no ownership in the property nor in the stocks of Inter-Continental Energy Corp.
6. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

Respectfully submitted,



*Locke B. Goldsmith*  
 Locke B. Goldsmith, P.Eng.  
 Consulting Geologist

Vancouver, B. C.  
 November 19, 1981

AFFIDAVIT OF EXPENSES

This is to certify that a geological survey was completed over the Late Claim at Thumb Lake in the Nicola Mining Division, British Columbia from September 22nd to 26th, 1981 to the value of the following:

FIELD:

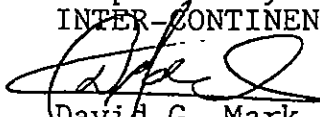
Geologist and helper, 7 days at \$400/day	\$ 2,800
Room and board	200
4-wheel drive truck rental and gas	560
Survey supplies	50
Lab analysis	50
	<u>\$ 4,160</u>

OFFICE:

Geological engineer, 1.5 days at \$400/day	\$ 600
Geologist, 3 days at \$300/day	900
Drafting and printing	720
Report typing and compilation	170
	<u>\$ 2,390</u>

GRAND TOTAL \$ 6,550

Respectfully submitted,  
INTER-CONTINENTAL ENERGY CORP.

  
David G. Mark,  
Director

A P P E N D I X

TABLE I

## GEOCHEMICAL SAMPLES

Sample	Location	Width	Cu ppm	Ag ppm	Au-AA ppb
Thumb #1	350 N, 250 W	1.0 m	240	0.2	<10
Thumb #2	500 N, 300 W	high grade grab of dump	82	2.4	10
Thumb #3	500 N, 300 W	1.5 m	310	0.2	<10





# CHEMEX LABS LTD.

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TELEX: 043-52597

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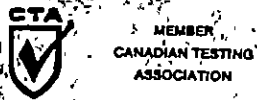
## CERTIFICATE OF ANALYSIS

TO : ARGTEX ENGINEERING  
#301-1855 BALSAM STREET,  
VANCOUVER, B.C.  
V6K 3M3

CERT. # : A8114522-001-A  
INVOICE # : I8114522  
DATE : 21-OCT-81  
P.O. # : NONE  
INTERCONTINENTAL

ATTN: L.B. GOLDSMITH CC: P. KALLOCK

Sample description	Prep code	Cu ppm	Ag ppm	AU-AA ppb			
THUMB-1	205	240	0.2	<10	--	--	--
THUMB-2	205	82	2.4	10	--	--	--
THUMB-3	205	310	0.2	<10	--	--	--



Certified by *Hart Bichler*

